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ANEURISMS.*

Report of Cases.

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Since 1908 I have treated numerous cases of aneurisms, the majority of which represented nothing extraordinary or worth mentioning.

It has been stated that aneurisms may be as small as a millet seed and as large as a foetal head, and I believe that the cases which I shall report bear out this statement. The cases which have been of interest to me are as follows:

One arterio-venous aneurism of left subclavian, one right subclavian, one external iliac and one of a branch of the hepatic artery. Two of these cases were due to syphilis and two to trauma.

Case No. 1. Arterio-venous aneurism of subclavian artery. Mr. A., age 26 years. Operated upon 1908. Two years prior to that date he was shot accidentally in the axilla leaving small shot and powder burns in the axillary space. About six months prior to operation the patient suffered much pain in the axillary and pectoral regions, and an enlargement was noticed just under the pectoral muscle; the musculo-spiral nerve was paralized, due to the contraction of the fascia in axilla. There was a distinct murmur heard with each pulsation; this was the aneurismal bruit. The subclavian artery was ligated in the third division and the axillary vein was also ligated, and the nerves freed so that the innervation was also much improved. This patient made a good recovery and was living the last time I heard from him.

This operation could have been done after the ingenious method of Matas, had I been familiar with his technic.

The second case in order of operation was in 1909. This patient was a young man—a bricklayer by trade—who had, about two years previously been shot with a 32-caliber pistol. About three months prior to his entrance to the hospital he was confined to his bed and treated for rheumatism. He later developed a large mass in the right iliac region which was very painful. He ran a temperature of 103° to 104° for several days prior to his admission to the hospital. There was no expansile pulsation, as is usual in these cases and the sac was infected and inflamed. Here is where the real difficulty of diagnosis arises and the surgeon gets into trouble.

The internes brought this patient to the operating room with a diagnosis of a psoas abscess. The abdomen was opened; the tumor was well surrounded by gauze packs. A free incision was made in what was thought to be a psoas abcess. A great gush of blood instantly revealed the true nature of the case. It was through presence of mind and prompt action that the patient's life was saved. I quickly packed the sac with six square yards of gauze and the hemorrhage stopped, to my delight and surprise. Keen's surgery only mentions five yards of gauze used in packing the sac, but when I reported this case to Dr. Matas, I did not know that I had left one yard of gauze in the sac, which was discovered after the patient had been dismissed from the hospital. The patient threatened to bring suit against me, but I assured him that the gauze had been intentionally left in the sac, and that that piece of gauze was partly responsible for the success which attended the operation. The other gauze packs were gradually removed in sections, in the course of two weeks, and the patient made a perfect recovery and is in perfect health today.

The classics and often quoted mistakes of Ferrand, DeSault, Pellatan, Dupuytren—all surgeons-in-chief of the Hotel Dieu, of Paris—prove clearly that even the most experienced may be deceived. But this mistake of mine was the means of a life being saved after several of our best surgeons had abandoned a case of subclavian aneurism, in Chattanooga, as hopeless, as I shall report as case No. 3.

Having the case just reported in mind, I thought this subclavian could be treated in the same way, in the event that I should not be able to ligate the subclavian in the first division. I asked permission to have the case assigned to me and operated upon this patient February 25, 1919. The usual incision was made and the clavicle detached from the sternum, and the sac was easily seen to fuse into the innominate artery, but while manipulating the

*Read before the Tennessee State Medical Association.

sac it ruptured and another rush of blood had to be dealt with, but it proved not to be so surprising as the first experience. The flow of blood was controlled by gauze packs. I was not satisfied with this procedure and feared that the opening was too close to the innominate artery and that a secondary hemorrhage was almost certain to ensue when the gauze had to be removed, so I sent the patient back to bed and five days later, after he had recovered from the shock of the first operation, I did a second operation when I removed the gauze previously inserted, and packed four square yards of gauze through the second incision made through the pectoral muscles, and further away from the origin of the subclavian. The hemorrhage was easily controlled, but an immense amount of blood was lost during this second performance as well as the first.

The aneurism was of such size that there was much pressure on the cervical and brachial plexus, and there was paralysis of the entire upper extremity. For two days I almost despaired of saving the arm on account of the slowness of the collateral circulation to become established. I ligated the axillary vein in the second operation. After forty-eight hours the circulation improved very rapidly, but the innervation did not show any improvement until I began to remove the gauze in sections ten days after the second tamponade. I removed all of the gauze packs in the course of four weeks; perhaps I could have safely removed them within two weeks, but I was playing safe. There was at no time any elevation of temperature, to speak of, and the oozing stopped after the second day. It is plain that the bleeding from the orifices that opened into the sac were avoided when the orifices were sealed by plastic exudate or organized thrombi.

While obliteration of the orifices by thrombi or exudates can take place very quickly (within a few hours or days) it is evident that no dependable hemostasis can be expected until complete organization of these exudates or thrombi has taken place. The organization of a clot, or an exudate, cannot be expected to occur until at least twelve or fifteen days have elapsed after the tamponade of the sac. At the end of the second week, organization of the clot should have begun, but this can only be recognized by the presence of granulation tissue. The time for the removal of the pack may be hastened by a premature detachment of the gauze, but it is safe to wait until granulations are plainly visible in the edges of the wound, or when you can find a portion of the gauze that you can remove without any exertion. Within two weeks the gauze becomes thoroughly saturated with the exudates and it is not difficult to remove it. Be sure to save the deeper pack for the last act.

After the gauze had all been removed the sac filled rapidly with granulations. After the original pack was removed it was necessary to insert fresh gauze for several days as a drain. This patient showed a Wassermann four plus.

I contend that it was better to have treated this case in the manner above described than to have ligated the innominate artery, and I believe that the case of external iliac treated by the open method and gauze pack was preferable to a ligation of the common iliac, and both cases were of such immense size that I doubt if any other procedure would have given as good results. However, this method is only offered in cases of great emergencies, which they represent. After searching all available records I have failed to find such an operative procedure reported and Dr. Matas thinks that these two cases are unique experiences.

The next case is one of multiple aneurism, necessitating amputation and should be recorded as a rare example of the aneurismal-diathesis.

This patient was 32 years old, white, a machinist by trade. Wassermann reaction four plus; the entire arterial system markedly sclerosed. Was admitted to hospital August, 1916, with radial aneurism. The radial artery for four inches above the aneurism was practically solid which made it impossible to do any operation but the simple ligature just above the aneurism, and the free incision of the sac to let out the clot. The patient was given several doses of Salvarsan and made a good recovery as far as the aneurism was concerned.

In August, 1917, this patient was rushed to the hospital in a state of collapse, with a diagnosis of hemorrhage in the abdomen, as he had complained of a severe pain in the region of his liver before he became unconscious from the loss of blood. His abdomen was quickly opened and at least two quarts of clotted blood was removed, and a very perceptible oozing was seen welling up in the right lobe of the liver. The hemorrhage was controlled by two matress sutures and a gauze pack. The hemorrhage was undoubtedly from a branch of the hepatic artery and represents the third such case recorded. Patient made a good recovery and with specific treatment gained thirty pounds in four months.

In May, 1918, same patient was admitted the third time for aneurism of the tibial artery. The aneurism ruptured before he reached the hospital.

The aneurism was packed with gauze and gradually removed; no further surgical attention given at that time, but patient remained in the hospital four months, and was treated by Dr. Meacham who had referred the case to me on previous occasions.

February, 1919, fourth admission to hospital. Diagnosis of gangrene of all toes on left foot, due to endarteritis. Amputation of toes necessitated. And in March another operation was necessitated by gangrene of leg.

This patient's history, his radial aneurism, the hemorrhage in the liver, the aneurism in the anterior tibial artery, and the gangrene of his toes, and later his leg, caused by general arterial disease, makes it almost certain that the hemorrhage in the liver must have been the result of a rupture of a small aneurism of one of the branches of the hepatic artery. The fact that it occurred in the substance of the liver, and that it was controlled by parenchymatous sutures (two mattress sutures) and a gauze pack, would indicate that only a peripheral branch was involved. This is the rare and exceptional feature of the case, because, while the literature of hepatic aneurism is rich in the reports of cases in which the main artery or its branches have been involved, the aneurisms have rarely, if ever, developed in the hepatic substance where the vessel is well supported by the prolongation of Glisson's capsule.

Of course, whether the hemorrhage was the result of a rupture (probable miliary) aneurism, or of a simple breakdown of an atheromatous artery, has not been determined. While the hepatic artery, or its branches, have been ligated eleven times, there are only two cases in which this ligation was done for *aneurism* of the artery or its branches. (Kerr and Tuffier.)

MONEY AND SERVICE.

As a rule normal human emotions govern every human being, including the physician. Therefore, if the recompense for labor does not enable the physician to carry overhead expenses; does not give him time and funds for improvement, study, travel and necessary recreation; does not produce profit that is protection for his family and for himself in sickness and old age; he can neither give efficient service nor continue to progress. If adequately recompensed he can give scientific service far more readily and is more likely to progress.—G. S. PETERKIN in the *Western Medical Times.*

IS SHE PREGNANT?

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Woman is a peculiar creature. In the sweetest language of poetry she is spoken of as coy and modest, vacillating and changeable. Her curious viewpoints and lack of logic are all-appealing. We worship woman because she is different from ourselves, so unique in her manifestations of character. No one can yet say that he knows what a woman is going to think or what she is going to do. And our great regard for her is brought about not so much because of her personal beauty. but because of her varying landscape.

Biologically speaking, we find that woman is largely activated by her thyroid and sex glands, while the manly man is largely under the influence of the hypophysis and adrenals. The two latter glands make for cold calculation and the former glands for warm sympathy and intuition. This is the normal woman. Here we have in the two sexes positive and negative electricity, attracted to each other. We have two broadly different natures which produce a satisfactory response when brought together, one supplying to the other moods and mentality which are most missed.

In the early ages we have reason to believe that these two types prevailed, but by the influences of civilization, communal life and the results of education the secondary characteristics are crossed over, and a large per cent. of people are physiological hermaphrodites: men with some female characteristics, soft in their nature, irresolute, the middle-of-the-road type; and women who show the hypophysis and adrenal ascendency in a measure, developing bone and hair, soubrette voice, and a nature which leads them to expect the recognition and position which man has always occupied; the broad line between masculinity and femininity disappearing.

In the woman of pure femininity, the events which are normal to her will be normally expressed. It is a rare thing to have her become pregnant and not demonstrate the symptoms and signs of pregnancy in the normal way, so that we can decide whether or not she be in that condition, but the woman with narrow costal angle, with visceroptosis, with an imperfectly developed heart and blood vessels, or the one with hypophyseal tendencies (where we have hair growing like a man's where the bones are large and the muscles thick and strong), it is hardly to be expected that the

reaction of impregnation on the body and its nervous system will be quite according to the books.

No where in diagnostics have we the difficulties and the disasters to reputations as in the diagnosis of pregnancy. Woman's desire to have children, her longing for maternity, may so impress the nervous system as to produce a mimicry.

How well I remember in the early years of my practice being sent for to attend a woman in confinement. She had gone nine months without flow, so she said. Her abdomen was big. On the table alongside the bed were the little clothes. Putting a tape on my vest button I sat down to make ready. The pains she was having did not seem to be the same as expected in these cases, and on examining I found it was nothing but gas! I told her she was not pregnant and I was dismissed.

Then, again, the woman may pay no attention to herself, may be indifferent as to her uterine condition, flow every month, give no indication through symptoms, and yet something may start up.

Mrs. E. L. had not had a child for sixteen years. Menstruations were regular and normal in amount. Her mind had not been upon herself. But she had a prolapsus and the womb was large and giving her considerable distress. I diagnosed myoma, did a hysterectomy, only to find she was two months pregnant.

The first case often deceives the young practitioner. The second type will deceive any one. But woman is a fair deceiver. She does not stop at just this point in her endeavor to perplex the diagnostician. I have repeatedly seen something as follows:

Mrs. M. H. had pelvic distress for a year. Her menstruations were regular, the last one more than usual. No history of pregnancy. There was a tumor on the left side, with some pain. Myoma was suspected. Through the abdomen I did a hysterotomy upon a uterus the size of a three months pregnancy. Its color was uniform, it had an elastic feel, no corpora lutei were present, and a diagnosis of myoma undergoing mucoid changes was made, but through the hysterotomy wound a cystic mole was found.

Mrs. A. J. was in the habit of skipping her menses for several months at a time, then having them reappear. Had not seen any flow for three months, then it came on with severe pain in the lower abdomen. The cervix was soft, the womb enlarged, tender, apparently fixed, somewhat fluctuating and pressing into the rectum. There was no rise in temperature. The case was diagnosed salpingitis purulenti. Through a mesial incision we did a celiotomy. Adhesions covered the adnexa; the womb was soft, size of three months pregnancy, with intermittent contractions indicative of an active content. The adnexa were separated from the adhesions; the pyo-salpinx dropped into the pelvis removed. The uterus was split for diagnosis. It was foul and necrotic. On further examination, a necrotic decidua was found in the vagina which was not there before etherization was started.

Sometimes a surgeon will make a poor job of things, producing what we are calling the "junk of jitney surgery" (because an operation performed without proper reason and thoroughly completed diagnosis is jitney surgery, and because Noble has called its results junk).

We have a very pretty case of this in Mrs. M. K. She had had her cervix amputated. There was a pin-hole through which the menstrual flow would leak at times. There was pelvic pain. The uterus was very large and a diagnosis of some type of bleeding uterus, possibly myomatous or fibromatous, was made. We opened the abdomen and found the womb enlarged to the size of a three-months pregnancy, soft, both ovaries free from indication, that is, no proper corpora lutei, both tubes swollen, clubbed and surrounded by old blood clot. At intervals of about half a minute the uterus would contract, wrinkle itself, contractions beginning at the Fallopian horns and extending down over the entire fundus, generally a pretty good sign of some active tension. During contractions a small quantity of blood fluid would be squeezed out of the distal portion of the tube. Relaxation would then take place. We did a hysterotomy and found a hematometra, produced by the contraction of the scar of the amputated cervix.

Experiences with the malignancies are also entertaining. A goodly number of the profession are wedded to the curet. It is almost a crime for a surgeon to incise a malignancy in a breast or elsewhere in the body, even for diagnosis. An elaborate technic is provided for those who have the false courage to do so, so that the cancer cells will not pass through the lymphatics or be wiped up into the non-invaded tissues. But the average gynecologist feels that he must scrape the uterus for diagnosis, thereby opening venous channels and the lymphatics of the organ to possible invasion. We have seen cancers which more than once have evaded the curet. McMurtrie of Louisville and others have demonstrated that one can

not properly curet the cornua. I have repeatedly curetted a womb for my students and allowed them to follow me, then removed the organ, split it, and shown how imperfectly the curet's work has been. Most of it was shredded, not removed, and the corners had not been reached. So, when suspicious of malignancy I avoid the curet and subject myself to surgical criticism by doing a hysterotomy. My conscience is satisfied—my surgical brethren critical.

Mrs. J. F. had a uterine discharge. The cervix was large and cicatrized from previous confinements, and somewhat friable. I diagnosed malignant cervix with possibly pregnancy. A hysterectomy was performed; the diagnosis of the cervical condition was held, but the cavity of the uterus was extensively malignant and putrid. In this case the discussion came up, Might she not be pregnant? How could we tell? What was best to do, with the possibilities of the woman going to term and having a Caesarian?

Mrs. J. J.—regular up until a few months ago. Menses skipped, then reappeared. She became markedly anemic, feeble, suffered great pain. Examination was negative except to find the uterus enlarged. Consultation with a specialist in obstetrics eliminated pregnancy. We did a hysterectomy through a mesial incision. The fundus was soft and very pale. On being removed, we found a placentoma.

Sometimes a woman will not be truthful, and in the thyroid woman truthfulness does not always mean intent to cover. Then there are those who will in an effort to protect themselves either make light of past incidents or hope that the surgeon will be able to eliminate the convincing evidence before she returns to her family.

Mrs. L. W., widowed, came into the hospital with a cystic mass in the lower abdomen. Her story was somewhat indicative of pregnancy, but she absolutely denied contact and possibility of conception, looking one straight in the eye. We then told her that she either had an ovarion cyst or was pregnant, and she must be truthful. She affirmed what she had said previously. We did a celiotomy and found a four-months pregnant uterus and closed. The next day on being told of the condition we left her in, she acknowledged the truth.

Miss J. C. had a large hard mass in the abdomen. Pelvic distress was complained of, some interference with defecation, but any perversion of menstrual function was denied. We did a hysterectomy for a four-pound myomatous uterus, and in between each tumor snugly placed was a two-months impregnation.

We have often found that the cycle of menstruation did not give one a truthful indication of pregnancy. The secondary phenomena of vomiting, large tender bosoms, enlargement of thyroid, perverted appetite, etc., were also not very important aids in making a diagnosis. How often have we pondered at the bedside as to what it might be. Carstens very cleverly says, "When in doubt, wait." But in some of our cases, according to the histories just mentioned, waiting might have proved fatal; in others, waiting would not have helped in the diagnosis. But in the large majority of cases the young man had better wait than make a break.

The greatest puzzles come to the surgeon who on opening the abdomen, has the womb in his hand and still is in doubt as to what procedure should be followed out. The book tells us that the corpus luteum remains over for a certain number of months after impregnation begins. In some of our women they were found distinct and strongly suggestive of impregnation. We have taken the cue and replaced the uterus. But in spite of books, they were not always found, certainly not as often as we would wish, and further study has to be made as to the position the tubes bear to the uterus and their relative size as compared with it. Usually, the Fallopian tubes become somewhat hypertrophied; they enter the womb slightly anterior and not far below the fundus, but in some cases of impregnation the contained fetus has developed the fundus more than normally and the tube enters the womb at a lower placement, which is very deceiving in differentiating between a soft myoma and a pregnancy.

The consistency of a uterus cannot be a guide. We have seen a uterus that was as soft as a hydrocephalic brain and as mottled, which had a myomatous content. We have seen others that were strongly suggestive of myoma, round red, fairly uniform which contained a fetus.

There is a sign occasionally found, which is strongly suggestive of increasing tension, such as a growing fetus will produce, and a myoma will not, and that is, intermittent contractions beginning at the Fallopian entrance, passing over the uterus, producing marked wrinkling, followed by relaxation. This interesting phenomenon is not unusual, and increasing tension will produce it, and a live fetus generally, but as in the case be-

fore mentioned, a hematrometra was seen to do the same thing.

In my experience of over forty years with women I must acknowledge making more errors in the diagnosis of pregnancy than in any other one condition. It is extremely disconcerting to tell a woman that you will be around in a few months and bring her a baby and find out at the last minute that she is not in the family way at all. It is equally disturbing to have an abdomen opened under the diagnosis of tumor and remove a uterus containing a fetus. But perhaps the greatest calamity is to diagnose pregnancy, with the womb in your hands, put it back in place, and then have the woman return in a few months and criticize your statements to her, and feel that you have to put her to sleep again and finish your job. Interns will laugh, the public will scorn, and the error will not be soon forgotten.

There is no royal road to diagnosis in these conditions, but the happiest man is he who remembers that there are types of women, that those who have not been suppressed and perverted by years of civilizing influences will give the fewest errors, and the city girls whose ancestors have been pampered by ease and civilization will be more prone to perlex. In them the cocktail influence of the several internal secretions are past comprehending. Hypothyroidism, defective secretion of corpora lutea, the social life exactions, etc., will so pervert the normal nerve centers that symptoms will change and signs be lost or altered.

Before mutilating a uterus, a careful and repeated study of a most exacting history should be made and proper counsel should be obtained. Janeway used to say, "Never believe what a patient tells you, work it out for yourself." And by the bedside his advice should not be overlooked, and perhaps, also, in the multitude of cases, we should follow the advice of Carstens, "There is no harm in waiting."

280 Montgomery St.

Feelings.

Our superlative sensitiveness to our soldiers' welfare causes us to stand aghast at the blood price of war; our sublime indifference to our neighbors' weal has caused us to stand aloof from the blood price of peace. Yet, if magnitude of economic loss be the criterion, our sentiment finds the narrow channel while the broad one is ignored.—T. Norman Dean, *Bulletin of the U. S. Bureau of Labor Statistics.*

OVARIAN SALVATION VS. OVARIAN DESTRUCTION.

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Since the day of McDowell, various opinions have prevailed as to the surgical treatment of the ovary. When it was found that these organs could be safely and successfully removed, the onslaught was little less than terrible and many healthy ovaries were sacrificed upon the altar of surgery. Then the pendulum gravitated in the opposite direction, and through conservation many slightly diseased ovaries were left *in situ* thus leaving the patient in a rather worse state than prior to the operative procedure, the mechanical irritation tending to aggravate the already patholgic organ.

Let us now digress for a moment: Rapidly is growing the opinion that an ounce of prevention is worth more than a pound of cure, and more speedily than that is waxing the efforts of prophylaxis. Already many of our states have enacted laws whereby future generations will be delivered from all forms of contamination and degeneracy; but to our knowledge such operations have thus far been practiced only on the male sex and in penal institutions. Now, just who shall decide the all-important question as to what constitutes an unworthy subject for issue, might be likened unto the most appropriate management of a compound, comminuted, stellated fracture!

The hereditary tendency no doubt plays many disagreeable pranks in the contour of our existence, but likewise does the spirit of evolution demobilize the ravages of the ages. In substantiation of this we have but to look backward to the fifteenth century when the greatest part of the world was specifically infected, and though the burden was carried by some unto the third and fourth generations, yet the virulence of the infective organism met resistance somewhere; otherwise few at present could boast of the lack of contamination.

How proudly do we hail our ancestry especially if they left great wealth, associated with a king or ruler, or proved themselves heroes; the enormity of our nothingness compared to our cherished paternity echoes the historical repetition of degeneracy. All any family has to do is to become large enough and some members thereof will find their way to the rendezvous of misery, degeneracy and the penitentiary! Would you practice oöphorectomy on the first kin to obviate the encroachment of the latter sting? More than ever are we living

in an age of faddism, and the guillotine of the broad ligament lacks for execution only popularity. The efforts of the public health system for the elimination of communicable diseases is most admirable and is to be concurred in by the profession at large so long as the efforts are confined to cure; beyond this (especially should it ever reach the climax of ovarian destruction) does it deserve universal condemnation.

Returning to the original question: It is now an established fact that the ovary has more to do than mere ovulation, that its secretory function is equally important. "It is well known that the ovaries and testicles have at least three distinct functions: (a) generation, (b) action through absorption on the central nervous system which gives to men and women their physical, moral and intellectual characteristics, (c) a special tonic action which reinforces in a special way the action of the spinal cord and brain. These cannot be disputed."

According to MacLean there are excellent reasons for believing that the ovaries are intimately concerned in internal secretion, and the evidence is almost all in favor of such a relationship. The experiments of Loewy, Richter and many others show conclusively that the ovaries form a specific substance which increases oxidation of the tissues. This agent enhances metabolism, increases the hemoglobin content of the blood, and produces an increase in respiratory exchange. Graves claims "after sexual maturity the ovary exercises a trophic influence over the other internal and external genital organs." Novak assigns to the corpus luteum the cause or control of menstruation and emphasizes that it operates in association with other ductless glands. Heimann ascribes to internal ovarian secretion the property of reducing the number of lymphocytes, showing a variation of eighteen to twenty-two per cent. in their number at menstruation and between periods. MacLean believes the evidence is too conflicting to justify a positive opinion that the ovary performs no function after the menopause. It is well known that those cases of double oöphorectomy followed by marked nervous and mental symptoms have a higher percentage of persistence of serious nervousness and mental disorders than would be found in a similar number of non-surgical climacterics.

In a study of one hundred and twelve cases Gordon presents some interesting figures for consideration. In thirty-four cases double oöphorectomy was performed for vague abdominal disturbances together with a train of indefinite nervous symptoms. Nine showed immediate improvement in pre-existing functional disorders, but shortly thereafter the former conditions returned. "In all the cases the former nervous and psychic phenomena have become aggravated in weeks and months following the operation." In seventy-five of the one hundred and twelve cases complete hystero-oöphorectomy was performed. "The removal of the diseased organs removed the localized discomfort, but in the months following the operation symptoms of a more distressing nature began to develop. In the large majority of the patients the former nervousness not only remained but became accentuated." Gordon observes in conclusion that as in the removed organs healthy portions of tissue were invariably found, it is to be supposed that the removal of the latter is in some relation to the morbid phenomena noted after the operations. The logical conclusion seems to be that one must be very cautious in advising operation on the generative organs and the tendency should be to oppose as much as possible the removal of any amount of normal tissue found in the uterus or ovaries. No operation should be advised on healthy organs if a woman complains of vague nervous symptoms. (Gordon.)

The summary presented by MacLean seems so appropriate that it is reproduced almost verbatim:

(1) That the ovary is probably vitally concerned in the scheme of internal secretion, and while such function may gradually decrease after forty-five years of age, as do the activities of many of the other organs of internal secretion, yet we have no reason for believing that such function ceases abruptly at the menopause:

(2) That the fact that nervous and mental symptoms following artificial menopause are apt to be more violent and more lasting than those following the natural menopause, is additional evidence that the ovary has been concerned in something else besides ovulation and menstruation:

(3) That irrespective of the age of the patient some ovarian tissue should always be left.

The congenital absence of both ovaries is recorded, but associated with this status is usually some prank of nature which results in other malformations. The absence of one ovary is more frequently recorded and this may occur without other deformity. Such an instance was recently reported by Dr. H. Horace Grant, of Louisville, in a woman of twenty-four who presented decided indications of right tubal disease. Exploratory celiotomy disclosed evidence of existing chronic appendicitis and also a cystic right ovary. After care-

fully exposing the left side, a stump of the tube about an inch and a half in length was found, the remainder evidently being congenitally absent; there simply remained this tubal stump with no vestige of the ovary. The patient was the mother of one child, and had menstruated normally since she was fourteen. She had not previously been subjected to any surgical operation. About two-thirds of the right ovary was resected and the appendicitis was also removed. The patient made an uneventful recovery.

Investigation of the literature shows that congenital absence of one or both ovaries constitutes an anomaly not infrequently observed. While this peculiarity is oftentimes associated with other generative developmental errors, many exceptions will be found to any rule which might reasonably be formulated; thus a woman may possess ovaries without Fallopian tubes, uterus or vagina; likewise she may have one or all the latter without the former. Hunter, Vidal, Chaussier and many others record typical instances of total congenital absence of the ovaries, and Thudicum at one time collected twenty-one cases of this character. Observations are also published by Morgagni, Pears and Cripps showing that they had noted absence of the ovaries. Cripps speaks of a girl of eighteen who had no ovaries; she neither menstruated nor exhibited any of the signs of puberty. Lauth saw a woman whose ovaries were rudimentary and who showed none of the physiologic characteristics of her sex. In contradistinction to the foregoing peculiarity, Ruband describes a woman with rudimentary ovaries who was "very passionate and quite feminine in her aspect." Ferguson, Spruill, Stewart, Garcin, Todd, Frank, McCann, Ramage, Ladinski, Wright, Withrow, Tuttle, Faidherbe, Dorland, and a host of others, cite instances in which the ovaries were congenitally absent. The aforementioned anomalies seem to create no physical unrest; being congenital no doubt they are cared for from the beginning.

Attention must now be directed to the surgical ovary, and no doubt every operator has been confronted with the problem of "to be or not to be." A survey of the literature leaves the unbiassed reader in much the same attitude, so far as a conclusion is concerned, as in the etiology of the recent pandemic of influenza. It is held that the thick, smooth, "leathery-skinned" ovary, such as is found associated with retroverted uterus, where the organ lies deep in the cul-de-sac and is subjected to the trauma incident to that situation, should be subjected to resection on account of the inability of the Graffian follicle to force its way to the surface thereby causing a fruitless and painful menstruation. The converse is also held, i. e., that it is far better to partially decapsulate or incise and suture such an ovary and at the same time suspend the uterus, thus the power of resistance offered the follicle is obviated and ovulation continues unimpaired. In rebuttal, however, it is contended that cicatrices from incision offer even a greater resistance, and thus the latter is worse than the primary evil.

It is the small cystic ovary which calls for a more accurate judgment. It is the type most frequently encountered and the end-results are more closely observed. Gradations from radical extirpation to mere puncture have been the subject of unending discussion. As early as 1864 Sir Spencer Wells emptied some dropsical follicles in one ovary of a young girl after having removed its fellow. The girl afterward married and had children.

Whitacre reports the case of a woman aged thirty-five with ovaries twice normal in size filled with Graffian cysts. He performed almost complete section of both ovaries with Montgomery-Gilliam suspension. The woman gave birth to a child one year later. Johnson removed a right ovarian cyst and eight-tenths of the left ovary. Two years later the woman bore a child. A case came under the observation of the writer about two years ago where the right ovary and half of the left were removed for cystic disease. The patient was twenty-four years of age. Fourteen months after the operation she gave birth to a normal child.

It is not my purpose to consider the Fallopian tubes excepting in so far as they are intimately associated with the subject. In 1911 I administered the anesthetic and with interest observed the operative procedure for removal of all of one ovary, both Fallopian tubes, and the greater portion of the remaining ovary. In about sixteen months the patient bore a child and has had subsequent children. I am informed that a distinguished surgeon of Baltimore removed both tubes and amputated the cornua of the uterus, one ovary in toto, the other in part, with subsequent normal delivery of an average-sized healthy child.

Burroughs refers to a woman upon whom successful bilateral salpingo-oöphorectomy had been performed. Two and a half years later she gave birth to a male child weighing eight and a half pounds.

Schatz removed a large cystic tumor of the left ovary, including the outer third of the tube and all

the ovarian tissue that could be found. The right ovary was resected and three silk ligatures passed between it and the broad ligament. A piece of ovarian tissue two mm. broad was left on the proximal side of the ligature; the right tube was allowed to remain intact. The patient was safely delivered of a child five years later.

Martin many years ago recommended the partial removal of ovaries not entirely diseased. He also resected part of the tube and made a new ostium by suture of mucosa to serosa. His experience suggests that patients recover perfectly after partial removal of ovaries for localized chronic inflammatory changes, hydrops folliculi, and oöphoritis. Recovery is also complete in most cases after resection of obstructed and otherwise diseased tubes. The after-histories of patients operated upon prove that women with resected ovaries and tubes are not more exposed than other women to further disease of the portions left behind.

Morris reports the case of a woman who was subjected to double oöphorectomy. Soon after the operation the patient began to menstruate, which function continued regularly and painlessly for four months. Fourteen months after the operation she was delivered after a normal labor of a healthy girl baby. The child died when about three weeks old, and soon thereafter the patient began to menstruate and continued to do so regularly and normally.

Robertson performed double oöphorectomy for cystic ovarian disease in a twenty-three year old woman. Three months afterward she menstruated. Five months later she married and became pregnant. She was delivered of a healthy boy baby at term.

Sippel reports double oöphorectomy in a woman thirty years of age. The right ovary was converted into a tumor the size of a child's head and without a trace of normal ovarian tissue. This was removed with its tube. The left ovary was the size of a goose egg. Along the hilum was a tract of normal tissue. A clamp was applied above this tract to arrest hemorrhage and the diseased portion of the ovary resected. The raw surfaces were united with catgut sutures, some of the blood vessels were ligated separately. This healthy portion was one inch and a half long by a third of an inch thick; the left tube was undisturbed. Menstruation returned after the operation, pregnancy supervened and the patient was safely delivered of a living child.

Sherwood-Dunn cites the case of a woman of thirty-five operated upon for bilateral salpingo-oöphoritis. The left ovary was found to be friable and presented numerous sanguineous cysts; the Fallopian tube was thickened, its extremity livid and extrophiated but permeable. It was removed with the ovary. The right ovary presented a tumor the size of two peas at its external border; the remainder of the ovary appeared healthy; the Fallopian tube was thickened and congested. A stylet passed through its lumen proved it to be unobstructed and it was decided to excise the small ovarian tumor by resecting about one-quarter of the body of the ovary. The wound borders were brought together and sutured with fine catgut. About a year later the patient gave birth to a well-formed seven-pound female child.

Gordon cites two instances where pregnancy followed the removal of both ovaries and tubes. In neither was it known that any ovarian tissue had been left yet he supposed there must have been. Probably a stump of tube had been left and the ligature disappeared.

Smith removed the tubes and ovaries from a woman who gave birth to a child two hundred and sixty-seven days after the operation. She had probably been impregnated just before the operation.

Sutton gives the history of a woman upon whom he had performed double oöhorectomy, removing from one side a multlocular cyst weighing twenty-five pounds, from the other a similar cyst weighing six pounds. On the first side he seared the pedicle with Paquelin cautery. This "failed to work" on the other side and he ligated the tube close to the uterine cornu. The uterus being in retroversion he attached its fundus to the anterior abdominal wall. Two years later the patient gave birth to a male child weighing ten and a half pounds, and subsequently bore another child weighing eight pounds.

Englemann refers to a case in which pregnancy followed double oöphorectomy, the right Fallopian tube being left intact. Some ovarian tissue was probably left at the operation.

Kossmann mentions a woman from whom he removed both ovaries, leaving the tubes, concluding the operation with vaginal fixation. The patient bore a child two years afterward. He supposes a fragment of ovarian tissue must have adhered to the ligature. This case also shows that proper vaginal fixation exercises no destructive influence upon either pregnancy or delivery and outlives both in its effects.

Ill performed double oöphorectomy upon a woman of twenty-eight, for bilateral cystic disease. A small amount of ovarian tissue was left on the

right side. Five years later the patient was delivered of a living child at term. The author remarks that "the Fallopian tube may slip from the constricting ligature and thus remain patulous."

Doran mentions a woman aged twenty-five who, after bearing one child, underwent oöphorectomy for multilocular adenomatous cystic tumor of the left ovary. She later bore four additional children. When thirty-nine years of age she came under the author's care and he removed a similar tumor of the right ovary. The woman became pregnant and gave birth to another child two years after the last operation. Menstruation again appeared and continued until advent of the menopause.

Baldwin records the case of a woman aged twenty-four who had given birth to two living children and was pregnant about three months. She presented two ovarian cysts, each the size of a cocoanut, which had become slightly adherent, but were distinct, and each had a long pedicle which was exceedingly small. The pedicles were ligated and the tumors removed. Recovery was prompt and the woman was delivered of a child at term. The author states that subsequently two additional children were born to this patient. Although it was supposed both ovaries were completely extirpated, the possibility is admitted that a small amount of ovarian tissue may have been left on one side or the other.

Baldwin also mentions the case of a woman aged thirty-two, the mother of one child aged nine, who had suffered from menorrhagia, leucorrhea, etc., for six years following abortion at two months. Local treatment, including curettage, had been unsuccessful, and it was decided more radical intervention was necessary. Accordingly both ovaries and tubes were extirpated. The ovaries were not adherent and every precaution was observed to effect complete removal. The symptoms continued and later curettage was again practiced without benefit. Physical examination eighteen months after double oöphorectomy revealed a small tender mass to the left of the uterus. The abdomen was reopened and the mass of tissue referred to, which was between the layers of the broad ligament, was easily identified and removed. It was about the size and conformation of a lima bean and presented all the characteristics of ovarian tissue. "The persistence of menstruation in this case, after double oöphorectomy, indicated the existence of ovarian tissue outside and independent of the ovaries, and the second operation positively demonstrated the presence of such anomalous tissue."

Meredith reports the case of a woman aged thirty-five two or three months pregnant upon whom he operated and removed bilateral ovarian (dermoid) cystomata. Three days after operation uterine hemorrhage developed and persisted forty-eight hours culminating in the extrusion of a vesicular mole. Menstruation recurred regularly thereafter for eighteen months, then ceased. A premature fetus was expelled following an accident. Menstruation was regular after convalescence. The author believes re-establishment of menstruation and the advent of pregnancy in this instance may be explained on the theory that some portion of ovarian tissue capable of maturing follicles was left untouched at time of operation, and that the patency of one or both Fallopian tubes was subsequently restored. His belief is that the ovarian tissue "consisted of an outlying portion in connection with the uterine extremity of one of the ovarian ligaments." The probability of there being a third ovary with its accompanying oviduct was considered unlikely.

The existence of supernumerary ovaries was at one time vigorously disputed. However, since the painstaking researches of Biegel, Puech, Thudicum, Winckel, De Sinety, Pauadino, and others, the occasional presence of a third ovary appears to be an incontestible fact. The original hypothesis was that supposed supernumerary ovaries were simply segmentations of the normal organs and connected therewith; but more recent reports warrant the admission that these anomalous structures are separate and distinct organs.

Sippel records an instance of a third ovary, Mangiagalli found a supernumerary ovary in the body of a still-born child situated to the inner side of the normal organ, Winckel discovered a large supernumerary ovary connected to the uterus by its own ovarian ligament, Klebs found two ovaries on one side, both consisting of true ovarian tissues, connected by a band three-fifths of an inch long. Seitz collected six instances of supernumerary ovaries associated with extra Fallopian tubes.

Manton records a case in which he removed the left ovary and tube and resected a cystic right ovary. A few months later he found it necessary to extirpate the resected right ovary which had undergone cystic degeneration. Behind the uterus buried in the tissues of the cervico-vaginal junction and distinctly below the peritoneum was a third ovary more than an inch long and three-fourths of an inch in thickness. The pathological report showed that the stroma of the specimen was ovarian. There were a few Graffian follicles which had

degenerated in their contents. The specimen had two varieties of cysts, one, the ordinary diltation of the Graffian follicles, the other having very irregular walls with acute inflammatory changes in the lining membrane. The stroma did not appear to be affected by this. There were numerous areas of hyaline degeneration, and some of this change had also taken place in the walls of the blood vessels.

During an operation for bilateral cystic ovarian disease Noble discovered a well developed third ovary about the size of a wren's egg situated an inch posterior to the left ovary. It was located in the broad ligament "posterior and inward from the left ovary." Microscopic examination proved it to consist of normal ovarian tissue.

According to Doran supernumerary ovaries may be divided into three classes:

(1) The ovarium succenturiatum of Beigel.

(2) Those cases in which two masses of ovarian tissue are separated by ligamentous bands.

(3) Entirely separate organs as in Winckel's case.

Beigel claims that supernumerary ovaries have been found twenty-three times in five hundred bodies examined post-mortem. In Winckel's case there were three separate ovaries and three avarian ligaments.

Peterson has investigated two hundred and fifty cases of hysterectomy performed during six and one-half years. He finds that ten per cent. of women regularly menstruating at the time of operation will be free from the troublesome symptoms of the artificial menopause after hysterectomy with removal of the ovaries; the percentage of cases with no symptoms after similar operations will be slightly more than doubled if some ovarian tissue be retained; the severity of the symptoms of the artificial menopause is much less when the ovaries are retained after hysterectomy. It is not necessarily true that the younger the woman the more will she suffer from the symptoms of the menopause after hysterectomy with removal of the ovaries, the greatest percentage of suffering occurs in women operated upon between the ages of forty and forty-four; therefore, it is not a good rule that ovaries should be removed from patients over forty when hysterectomy is performed. The severity of the symptoms of the menopause is practically the same after hysterectomy with removal of the ovaries for fibroid disease of the uterus and inflammatory disease of the appendages. Retention of ovarion tissue after hysterectomy cuts short the period after which patients usually suffer from the symptoms of the artificial menopause. The greater the amount of ovarian tissue conserved, the more will the symptoms of the artificial menopause be mitigated.

From a study of seventy-two re-operations on patients in whom one or both ovaries were conserved, MacLean draws the following conclusions:

(1) Routine conservation without due consideration of the ovarian and contiguous pathology as it exists in the individual case, is not good teaching:

(2) Regeneration of the conserved ovary depends largely upon the type and duration of the existing infection and the condition of the tunica of the individual ovary:

(3) Even when the most detailed technic is observed, the ovarian circulation is impaired:

(4) The retained ovary without the uterus is always a focus for possible trouble:

(5) The life history of the retained ovary is of short duration, and the trophic influence of the diseased ovary has been overestimated:

(6) Finally, a cured patient has few nervous symptoms.

Under the heading of unilateral sterility, and perhaps a theory for ectopic gestation, is reported the removal of the left Fallopian tube and the right ovary, ectopic pregnancy following.—The theory of distance between the ovary and fimbriæ plus impregnation, protoplasmic cell change, a developing ovum larger than the caliber of the tube, causing engorgement and occlusion preventing its descent.

Of one hundred and thirty-two cases of hysterectomy reported by Polak, in which one or both ovaries were left in situ, seventy-three patients returned for subsequent operation. In his resume he mentions five classifications covering the return of his seventy-three patients:

(1) Technic and general health have much to do with the end results; by technic he has reference to rough handling; by general health anemia and intercurrent blood conditions:

(2) A conserved unhealthy ovary is worse than none, for the pathological stage progresses:

(3) If at the age of the menopause or beyond, removal of both ovaries gives the best results:

(4) Nervous phenomena are greater if the patient is in good health with a pre-operative high blood pressure than if the blood picture shows anemia or toxemia:

(5) The nervous state is less after inflammatory pelvic disease than fibromyomata.

In two personally observed cases of cystic ovarian disease, in each case both ovaries were removed,—one patient was operated upon more than eleven years ago,—and both have the same pelvic pains they had prior to the operative procedure. Graves suggests that conservation must have due respect for the surrounding pathology.

CONCLUSIONS

(1) If the patient has but one ovary and is without issue, endeavor to conserve it until the possibility of issue is gone; if necessary it may be removed at a later date; the same statement applies to all cases in which doubt exists, excepting in the presence of undoubted malignancy:

(2) It is a hazardous risk to leave an ovary on one side and a tube on the other:

(3) It is not always safe to remove both tubes, leave a part of one ovary, and say to the patient, "you shall be barren:"

(4) Under no circumstances remove ovaries for mere prophylaxis.

KEEP WELL.

A natural death is rare, very rare; as rare indeed as an honest politician. Most men commit suicide. Most men dig their graves with their teeth. That we are only fifty per cent efficient is proven. The causes are plain. Will we remove them? We will not remove them unless we cease ignoring the science of hygiene. That science only can bring us health. It is lack of it that puts us to the bad. In ill health we find the cause of our social ills. Insanity, crime, pauperism, feeble-mindedness, epilepsy, delinquency and dependency are synonyms for ill health, sickness and disease. Only impracticable people ignore hygiene. Hospitals, insane asylums, jails and poor houses are monuments to our ignorance and conceit.

We must know, we must understand, and we must practically apply our knowledge of hygiene, otherwise we perish.

What is hygiene? It is the science of right living. Where must it be applied? Here and everywhere. Who shall apply it? You, I, every one. When shall it be applied? Now, all the time. Who will heed and apply it? The wise. Who will not heed and apply it? The foolish.

Robert Louis Stevenson, dying of consumption, wrote this as his last message: "I am set up at the crossroads to warn you to flee from the hebetude to come; and I say unto you, keep well; and I say unto you again and again, keep well."—*Bulletin of Indiana State Board of Health.*

INTUBATION vs. TRACHEOTOMY IN DIPTHERIA.

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SAN ANTONIO, TEXAS.

Before the days of O'Dwyer, who invented and first used the laryngeal tubes which still bear his name, tracheotomy was resorted to in all cases of laryngeal stenosis complicating diphtheria. This operation, though still frequently done, has to a degree fallen into disuse, because the procedure of intubation is elected in preference, due to the fact that it is safer and more surely tides the patient over the suffocative period of the disease.

The disadvantages of tracheotomy are, among others, an open wound which may become infected or slough; the operation produces shock in many cases; an anesthetic is usually required; the air through the tracheotomy tube does not have the humidifying and warming effect of normal breathing and predisposes to pneumonia. Tracheotomy is indicated low down in the larynx where the operator, for some reason, is unable to insert the tube.

The operation of tracheotomy may be performed above the level of the isthmus of the thyroid gland (high tracheotomy) or below that point (low tracheotomy). The high operation is the one most often performed because of the accessibility of the trachea at this point and because it is more free from danger. In the low operation there is more troublesome hemorrhage and, even when the utmost care is exercised, blood sometimes seeps into the trachea during the operation, forming a clot at the bifucration of the bronchi causing death from suffocation.

The high operation is performed in the following manner: The patient is placed upon a table, his shoulders elevated and his head thrown back. This brings into prominence the thyroid and cricroid cartillages—important land marks. The broad superior edge of the thyroid should be located with the index finger. Immediately below it is the cricoid. The incision begins midway between the cricoid and the superior border of the thyroid and is carried an inch below the cricoid. The skin is retracted and the superficial and deep fascia are now divided and with the muscular tissue, pushed aside with a grooved director. Without immediate necessity for a rapid operation existing, the bleeding points should be caught and the wound left dry before the trachea is opened. The trachea, while being incised is held by a tenaculum, while the

bistoury, inserted immediately above the thyroid isthmus, which usually lies over the fourth trachael ring, divides the first three or four rings of the trachae. If the isthmus is situated high up, it may be pushed down with the finger. As soon as the trachea is opened the patient coughs violently, very often expelling large pieces of membrane. When the oozing stops the canula may be inserted and held in place by pieces of tape tied about the neck, or by strips of adhesive plaster. The inside tube may be removed as often as necessary to be cleared of debris and mucus.

The low operation requires practically the same technic except more care should be exercised so as not to wound blood vessels which pass over the field of operation, and which, if cut, may cause a very annoying hemorrhage as the field must be dry before the trachea is opened.

The operation may be done under general or local anesthesia, or with no anesthetic when instantaneous relief is demanded to save life from suffocation. Chloroform rather than ether is preferred by most surgeons because it is free from spasm producing effect upon the larngeal muscles which ether is said to possess. The writer has performed two tracheotomies upon small children under weak solutions of cocaine, little pain being evidenced by the patients.

After the operation the patient should be kept under constant surveillance to prevent the plugging of the tube from shreds of membrance. Secondary hemorrhage forming a clot in the trachea, though not a frequent complication, has been the cause of several deaths, and its possibility should not be disregarded. Young children are very apt to pull the tube out, if not carefully watched. This accident occurred in a case that came under my observation a few years ago and resulted in suffocation and death of the patient.

In 1858 Bouchet of Paris passed tubes into the larynx of the living subject, but nothing of value came of his experiments until several years later when O'Dwyer, a physician in charge of the New York Foundling Asylum, inspired by the experiments of Bouchet, invented and successfully used in many cases of diphtheria with suffocative symptoms the instruments for intubation which bear his name.

O'Dwyer's set of instruments, which have not been materially modified since first given to the world, consist of a mouth gag, a thimble for the surgeons' finger, an introducer, an extractor and a set of tubes graduated in size. These tubes are made with a bulging top, which, when in place, rest upon the false cord. A scale comes with the set indicating by number the size of the tube appropriate to the age of the patient. At the top of each tube is an eyelet into which a string is tied before the tube is introduced. This is to prevent its being lost in the larynx or oesophagus should a false passage be made.

The introducer is curved and is fitted at its distal end with an obturator over which the tube is slipped. A small lever in the handle of the instrument when pressed liberates the tube from the oburator leaving it in place in the larynx. The extractor is so fashioned that it can be slipped into the tube and by a lever attachment its blades can be separated, thereby holding the tube in its grasp while it is being liberated from the larynx.

When the operation is to be done the child is wrapped in a sheet which holds the arms firmly. It is best held in the lap of an assistant while a second assistant from behind holds the head firmly in a vertical position. The mouth gag is inserted and held by the assistant from behind. A tube suitable to the child's age is selected and attached to the introducer and the operator is now ready to proceed.

During the process the surgeon should be on the alert to avoid being infected by the patient who may cough violently during the operation. It is always best to have the eyes protected with glasses and to wear moist gauze tied over the mouth.

The operation, if successfully done, takes but a few seconds. The surgeon standing directly in front of the patient passes the index finger of his left hand over the base of the tongue and feels for the epiglottis. When it is felt it should be drawn forward against the base of the tongue and held there while the tube, previously oiled, carried by the introducer with its handle against the chest, is made to slip along the side of inserted finger. As soon as it is felt at the point of the finger which is holding the epiglottis in place, the handle is elevated thereby directing the tube toward the larynx. If this is not done a false passage will be made. After the tube has entered the larynx the introducer is removed. Should the tube be expelled during an attack of coughing, the operation will have to be repeated. The tube should be left in place until evidence of stenosis ceases. After the administration of antitoxin 34 or 48 hours will suffice in the majority of cases.

When the tube is to be removed, the patient is prepared in the same way as for its introduction.

The epiglottis is pulled forward with the index finger of the left hand and the extricator is guided with the same finger into the larynx. The blades are separated and the tube is withdrawn. Should dyspnoea follow its removal, it should be reinserted.

Some difficulty may be experienced in feeding intubated children. This should not be attempted while the child is in a sitting posture, as the food will enter the larynx. The diet, if liquid, should be administered from a bottle, while the patient lies upon its back, with the buttocks and feet elevated. Solids, which do not enter the trachea while lying on the back may be fed to the older patients.

518 STATE BANK BUILDING.

WHO KNOWS.

Why do we breed morons? Is it because we wish to have social ills and then organize and support societies for amelioration and reform? Who knows?

Why do we breed idiots? Surely it is not because we want to increase taxes to build asylums and support them? Who knows?

Why do we breed mosquitoes? Can it be because we like to have malaria? Who knows?

Why do we breed flies? Is it because we like to have typhoid fever? Who knows?

Why do we grow tobacco? Is it because we want to rob the soil of potash and thus cut down wheat production? Or is it because we want the dope which tobacco carries? Who knows?

Why do we have syphilis? Is it because we desire to be covered with sores, to have paresis, paranoia and locomotor ataxia? Who knows?

Why do we have consumption? Is it because we wish to breathe foul air? And otherwise live against hygiene and health? Who knows?

Why do we breed degenerates? Is it because we wish to build more institutions and to relieve the miseries they bring? Who knows?

Why do we build and maintain hospitals? "To care for the sick, of course." Oh, yes, but why be sick? Is it because we haven't enough practical sense to keep well? Who knows?

Why do Americans spend five hundred million dollars annually for medicines? Is it because they like to make themselves sick, or is it because they like the taste? Who knows?

Is civilization an organization which aims to secure the survival of the unfit? Who knows?
—*Bulletin of Indiana State Board of Health.*

THE BRITISH NAVAL HOSPITAL SHIP "GARTH CASTLE."

C. P. G. WAKELEY, M.R.C.S., ENG., L. R. C. P., LOND., TEMPORARY SURGEON, ROYAL NAVY.

At the outbreak of war the peace time standard of the Naval Medical personnel of officers and men had to be supplemented by others and, as regards the officers, surgeons, men from consulting, town and country practices and new men fresh from the colleges were speedily available, and so, in a comparatively short time, the Medical Branch was in no way behind any other in the service.

The commencement of the war was marked by an accident which only too clearly emphasized the risks run by hospital ships, the hospital ship "Rohilla" being lost in a storm off the Yorkshire coast near Whitby, losing two-thirds of her sick

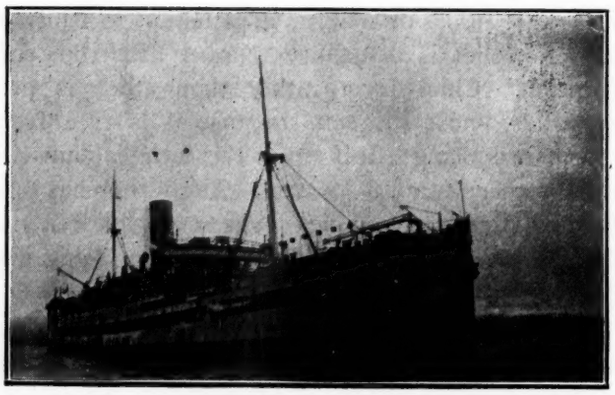


Fig. 1—H. M. Hospital Ship "Garth Castle" at Scapa Flow.

berth ratings, the majority of whom were recruited from the ranks of St. John's Ambulance Association.

To replace this loss the Union-Castle liner "Garth Castle" was converted and staffed. It is possible that lessons taught by past experience were responsible for the splendid equipment of this ship. The "Garth Castle" in peace time was an intermediate liner running between England and South Africa. She is a ship of 14,650 tons displacement on a draught of 27.3 feet, with a speed of 13 knots. The crew consisted of 9 Medical Officers, a Chaplain, 4 Nursing Sisters, 64 Naval and 125 Mercantile ratings.

To comply with the Hague and Geneva Conventions the ship was painted white with a green band half way between the deck rail and waterline, displayed a row of green electric lights and four illuminated red crosses (two port side and two starboard side, fore and aft). At night time

these lights gave the ship a beautiful appearance and markedly showed on what mission she was engaged.

At the time the Germans were committing the dastardly crime of sinking hospital ships, the funnel, which up to that time had been of a "buff" color, was painted white with a large red cross on the port and starboard sides.

There was plenty of deck space in the ship and this allowed of patients "laying out" during the fine weather in their cots.

it was also used on admittance of cot cases which were taken out of the cradle on the promenade deck, placed on the lift and lowered to whatever ward they were for.

On the upper deck there were an emergency operating theatre, used as a dental theatre, disinfector, laundry, three officers' wards and a large medical ward (F).

The main deck consisted of five wards—"A," "B," "C," "D" and "E," with the dispensary forward in "A" Ward.

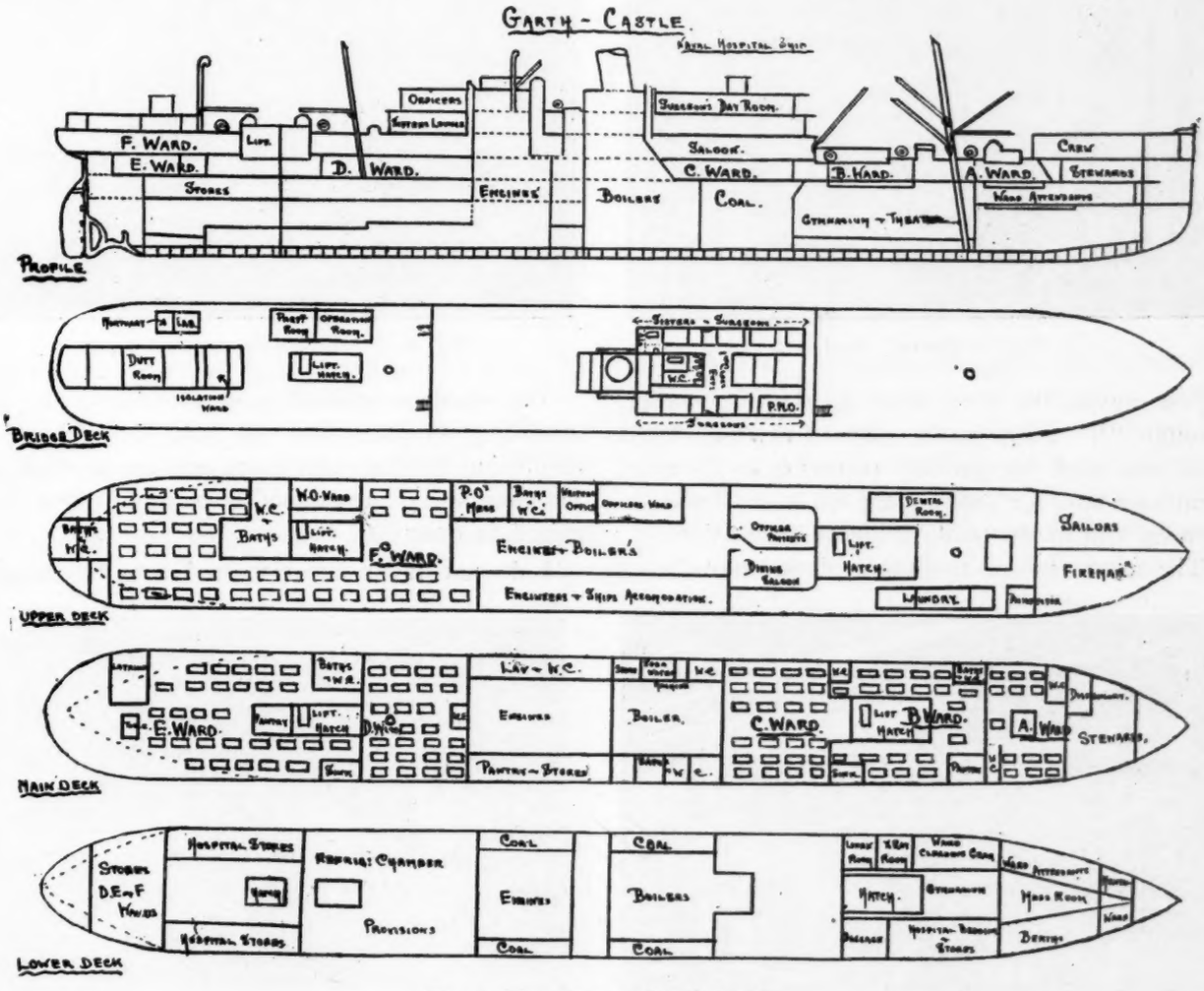


Fig. 2—Plan of the "Garth Castle."

While attached to the Grand Fleet it was customary to have the Royal Marine Band from one of the squadrons on board to play on deck to the patients. If the weather was unfavorable they played in one of the wards.

On the promenade deck aft the main operating theatre, laboratory and mortuary were situated. The entrance to the operating theatre was housed in, the lift to the wards being just outside the door. This was a very convenient arrangement, as, besides being adaptable for use for operation cases

Each ward was connected by watertight doors on the port and starboard sides. These were always closed at sea and opened while at an anchorage or in harbor.

The two after wards, "D" and "E," were the main surgical wards. "C" ward, amidships, was a minor surgical ward. "B" ward was a genito-urinary ward and contained a small theatre specially built for administering the intravenous injections of arsenical compounds in the treatment of syphilis.

"A" ward was for venereal cases and had an irrigation room fully equipped for the treatment of gonorrhea.

On the lower deck forward were the two mental wards, Naval Ratings mess deck, a fully equipped gymnasium and billiard room, x-ray room, carpenter's shop and various storerooms. It was in this spacious compartment that concerts, dances, etc., were held by the staff.

Fig. 3—Officers' Ward.

Just outside the *x*-ray room door a lift, running through "B" ward to the main deck, was fitted. This was used for patients requiring x-ray treatment and also for discharging cot cases from the forward end of the ship during an evacuation.

The after end of the lower deck, immediately

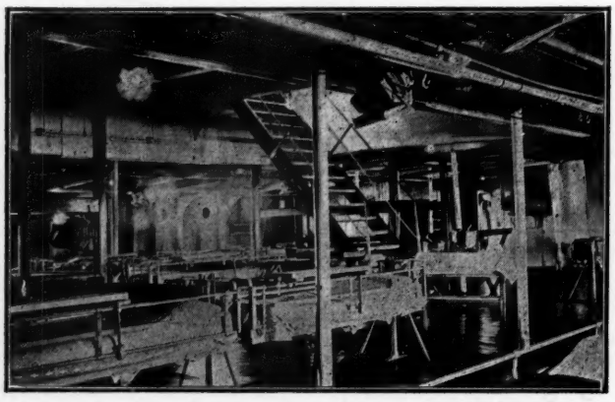


Fig. 4—B Ward—Genito-Urinary Ward.

under "E" ward, consisted of various storerooms and was used for church services.

The main operating theatre, aft, was well equipped. It was divided by a partition with a sliding door into two compartments, one being used for the preparation of cases and the other for operations.

The floor was laid with white porcelain tiles and the woodwork white enamelled.

The lighting, both natural and artificial, was excellent. The artificial lighting was by electricity. This was done on two separate circuits so that if a main fuse broke down the secondary circuit could be used.

Although the theatre was not a large one, being 24x14x8′, over 9,000 operations under general anesthesia had been carried out until January, 1919, with only one death on the table; this was a very late appendicitis case with general peritonitis.

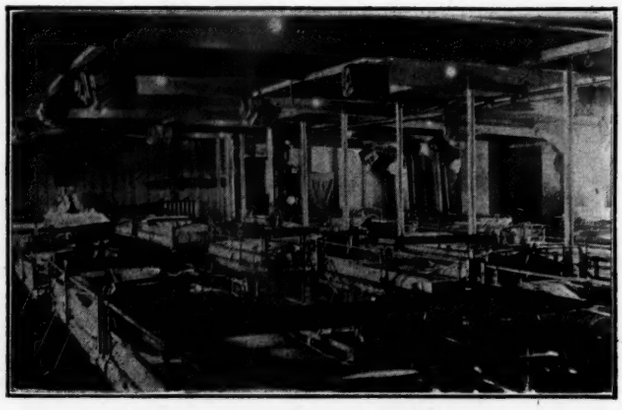


Fig. 5—C Ward—Minor Surgical Ward.

The wards contained from 14 to 58 swing-cots according to their size, the total number in the ship being 210 but with extra cots on the deck and hammocks the accommodation could have been raised to over 600.

I do not favor superimposed cots for hospital

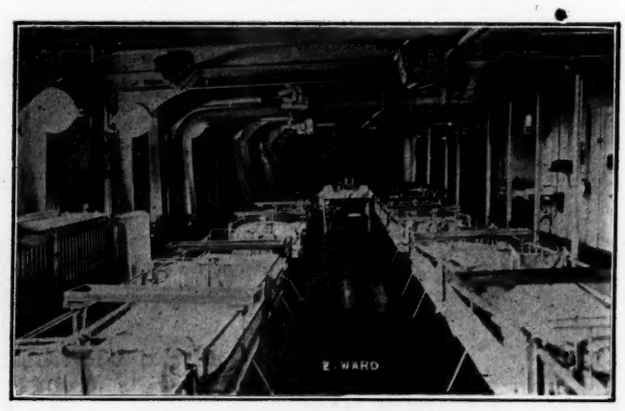


Fig. 6—Acute Surgical Ward.

ships, because I consider the patients require all fresh air that can be obtained. In hospital transports, carriers, etc., two or three tiers of cots is the general rule, but not in the naval hospital ships.

Over each cot was fixed a cork lifebelt. (See photographs.)

Hot and cold water was laid on to all wards and each had two bathrooms and four or more W.C's. Patients could have hot or cold salt and fresh water baths.

Electric sterilizers were fitted to all wards.

The wards were enamelled green, the decks being laid with dark green linoleum. This was not only restful to the patients but could be kept surgically clean.

A pantry was attached to each ward where food was cooked and served to the patients.

The dental theatre does not require description.

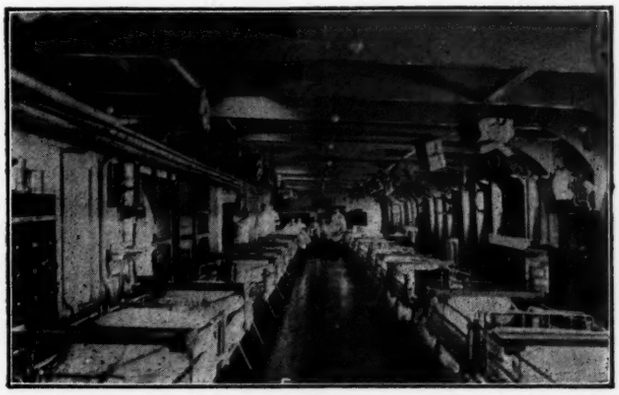


Fig. 7—F Ward—Medical Ward.

Suffice it to say that it was well equipped and under the supervision of a dental surgeon.

On the boat deck, forward, the Medical Officers' lounge was situated. This contained a billiard table, piano, etc., and was quite a nice room.

Opposite the lounge was the first-class smoke room which was allotted to convalescent officer patients.

On the promenade deck amidships were the

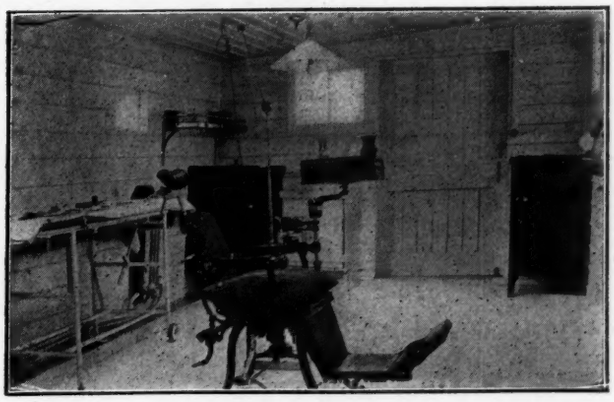


Fig. 8—Dental Surgery.

Medical Officers' and Sisters' cabins, Sisters' duty cabin and the Petty Officers' smoke room.

When the British Grand Fleet took control of the North Sea by closing all approaches to that part of Europe occupied by Germany its bases were three in number, viz: Scapa Flow (extreme north), Firth of Forth (south), and Cromarty Firth (intermediate). It was because of this fact that these hospital ships became something more than mere floating hospitals.

After refitting, a hospital ship would for some time remain at Queensberry in the Firth of Forth and then move to Cromarty or Scapa. If to Cromarty she would remain their for a short while and then proceed to Scapa.

At Scapa the population of a floating township

Fig. 9—After Operating Theatre.

composed of super-dreadnoughts to Submarines, oilers, colliers and other necessary ships such as repair and store ships, etc., would not be less than from five to six hundred thousand, and a modest computation would soon show that with a sickness rate of 1%, at least 500 cases would be occurring.

The sickness rate in the Grand Fleet under most trying conditions was very much lower than that of modern towns. How valuable the services of the

Fig. 10—Body of First U. S. Sailor Who Died on Board Going Over the Side Into a Drifter—H. S. Agadir in Distance.

Hospital Ships were cannot yet be accurately gauged.

The Battle of Jutland and the Dogger Bank Action showed that the proximity of shore hospitals was after all to be more desired than a whole fleet of Hospital Ships, as the warships, swift in comparison, when they could take aboard the

wounded from their less fortunate comrades could land them quicker and it is a matter of speculation whether on the whole this is not more advantageous than their being taken on board a Hospital Ship. Even if a Hospital Ship could go alongside the disabled warship perhaps the risks involved would not compare favourably with the object achieved. An outstanding case, however, serves to

Fig. 11—Cold Storage.

show some degree for comparison. When H. M. S. "ALCANTARA" was sunk by the German Raider "GRIFF" in the North Sea the survivors, suffering from shell wounds and burns, were treated within 6 hours of receiving their injuries on board the "GARTH CASTLE" and the results were excellent.

During the Armistice, the "GARTH CASTLE" was employed in carrying British wounded repatriated

Fig. 12—Band of Ill-Fated H. M. S. Vanguard Playing to Patients on Deck, May, 1917.

prisoners of war home from Germany, Holland and France.

On two occasions in the homeward voyage from Rotterdam to Southampton, Italian repatriated prisoners of war were landed at Le Havre, while in one of the outward voyages 352 German wounded prisoners of war were conveyed to Rotterdam.

After a brief stay in dock for a minor refit and re-storing, she returned to her former station as Hospital Ship to the Fleet at Scapa Flow.

OUR ENEMIES.

Goethe, the greatest German poet, "the Shakespeare of Germany," as he has been called, said: "The Prussian is a born brute and civilization will make him ferocious." I wish to paraphrase this and say: "The greater proportion of people are born healthy and their method of living makes them sick. The people of America are only fifty per cent efficient on account of ill health and disease. Apparently our population is 100,000,000; actually it is only 50,000,000. This is the result of wrong feeding, cranky immoderation, not enough air and sunshine, impure and insufficient water drinking, alcohol, caffein and nicotine addiction and our awful and absurd use of drugs and patent medicines.

These are our greatest enemies. Compared to these enemies, the Huns are our warm friends. Twelve months from this hour, one single preventable disease—consumption, a consequent of wrong living—will kill 200,000 people in our United States. Heart diseases, almost wholly consequent upon wrong living, will kill another 200,000; certain infectious diseases, ninety per cent preventable (typhoid, diphtheria, scarlet fever, etc.), will kill another 200,000 and degenerative diseases (kidney troubles, hardened arteries, etc.), all due to foolish living, will kill another 200,000. Compare this slaughter with the slaughter the Huns will be able to inflict upon us.—*Bulletin of Indiana State Board of Health.*

MORPHINE AND CELL NOURISHMENT

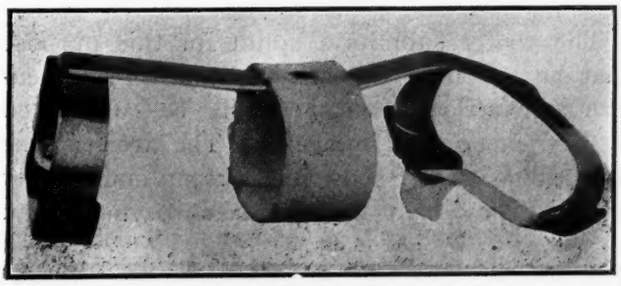
Does morphine relieve fatigue in cells? Experiments by Ranke as early as 1865 on fatigue showed that genuine relief from fatigue was secured by nerve tissue sedatives; but sedatives being used, it must be borne in mind that cell nourishment must be furnished and made available coincidently. In addition to normal saline as enteroclysis or intravenously or hypodermoclysis, which will counteract all the secretion inhibiting effect of the morphine used, it is a most excellent thing to use intravenous injections of hypertonic glucose solutions, 100 or 200 c.c. of a 20 per cent. solution given very slowly, requiring thirty minutes for the injection is a sure method of nourishing each cell adequately for several hours.—C. M. RAMAGE, in *The West Virginia Medical Journal.*

TREATMENT OF COLLES'S FRACTURE.

A. N. BESSESEN, M. D.
MINNEAPOLIS, MINN.

Fracture of the radius near the wrist joint occurs so frequently, that every physician in active general practice must at some time attend these cases. The importance of correct treatment is self-evident.

The diagnosis of fracture of the lower end of the radius is so well known in this day that no practitioner of medicine should fail in its establishment; and the ever present roentgenologist can with certainty demonstrate the exact line of fracture when necessary. Really a wonderful satisfaction to the man who revels in refinement of diagnosis. He is able to state positively that this is a case of Barton's fracture, of Smith's fracture, of Chauffeur's fracture or of Colles's fracture. And he can give a minute description of the condition present; that it is

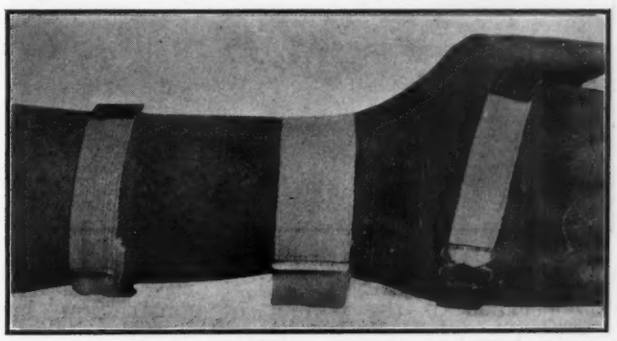


impacted or comminuted, simple or complicated, that the fracture is near or distal to the wrist joint. But what more nearly concerns this paper is the ability to determine with clearness the accuracy of approximation of the fragments after reduction. By this means we can file a visual record of the case, that may at any time be our greatest protection against misjudgment.

The first step in the proper treatment of fracture of the lower end of the radius, is then, an exact knowledge of the condition to be treated; and this is dependent on a correct anatomical knowledge of the part. When properly reduced the normal concavity on the anterior surface of the radius is restored. The styloid process of the radius is brought into position slightly lower than the styloid process of the ulna. And the wrist is made to look as like the other wrist as possible, with all landmarks in normal relation. This can be accomplished by any physician using ordinary judgment, providing he will take the time to observe and compare the parts. Unfortunately the presence of relatives and friends tend to excite and hurry the doctor, and very seldom he may attempt to treat the fracture in a grandiose manner, resulting in dissatisfaction to the patient and in annoyance to himself. It is much better to be deliberate and careful; to give an anesthetic should the patient require it; to remove the dressings at intervals, especially at the fifth to the seventh day; and while the exudate is still plastic to correct any slight displacement. Here as elsewhere diligence may be the price of success.

Perfect recovery may depend more on the individual care rendered than on any particular method of treatment. And it may be for this reason that equally good results are obtained with markedly different methods.

Robert Jones advocates the following as superior to the "old text book" instruction: "To reduce a left Colles's fracture, the surgeon takes the patient's arm in his left hand, with his own

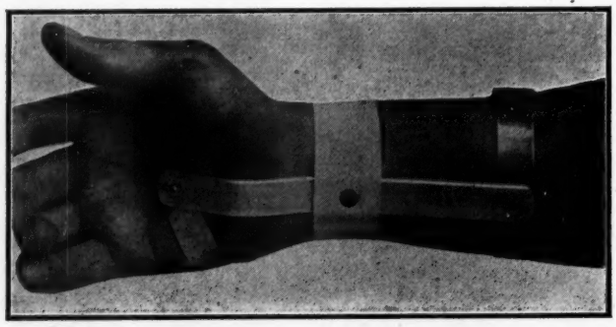


scaphoid tubercle against the projecting lower end of the shaft; he then places his right hand on the dorsum of the patient's wrist with his own scaphoid on the projecting lower fragment. A firm grip with a slight traction and twist of the wrist completely reduces the deformity. It requires knack rather than strength. The fragments can be retained in position by slight pressure of the finger and thumb, one on the upper fragment just above the seat of the fracture and the other on the dorsum of the wrist joint and styloid process to prevent it from rotating backward and outward. The tendency for the deformity to recur is not great if the reduction is complete, therefore the fracture is put up by replacing a pad of wool on each of these two points and retaining the pads with splints."

The text book method is performed by grasping the patient's hand as if to "shake hands" and at the same time grasping the patient's forearm just above the wrist, placing the thumb over the displaced fragment. The patient's hand is then drawn backward into hyperexten-

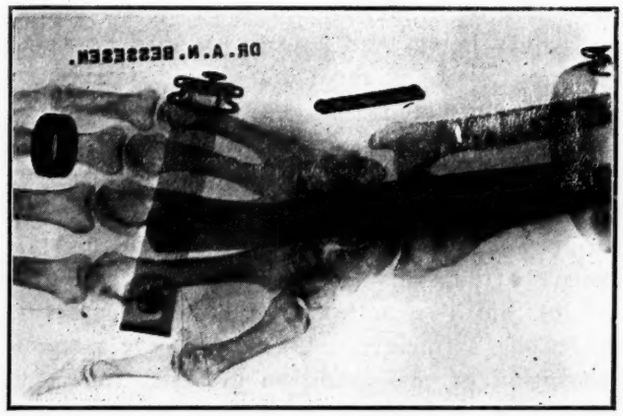
sion, and while pressure is exerted on the posterior surface of the lower fragment with the thumb of the hand grasping the arm, the hand is suddenly brought forward into flexion, using the ulna as a pivot while rotating the hand into pronation. It is usually necessary to induce anesthesia.

That the fragments can be retained so easily in position may account for the various methods of fixation; all the way from the old-fashioned straight anterior and posterior padded splints to the suspension cuff of Storp's without splints. The trend of treatment at present is toward the use of molded splints, such as the Jones's metal spiral splint, the Bond's splint, the Gordon pistol-shaped splint, or the Walker paper-maché splint. A plaster of paris cast should not be

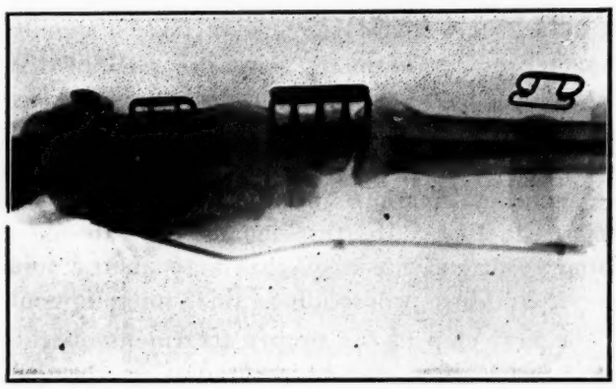


used in the treatment of Colles's fracture, not only because of the danger of constriction, but mainly because a cast interferes with frequent inspection. Its use in the past has probably been responsible for the larger proportion of failures. Another mistake is the early removal of splints. Some form of support should be retained for at least six weeks, even though union seems well advanced. The patient assumes that he has fully recovered when the dressings are finally rmoved, and he is liable to use the hand without restriction. Naturally the patient tires of heavy splints and bandages, and is anxious to use his hand as soon as possible; moreover, he may be sensitive as to his personal appearance. We should not, however, overlook our own interest and the welfare of the patient because of importunities. Rather should we then, provide protection for his injury that is satisfactory.

In the present state of knowledge we find it necessary to use a rather cumbersome dressing the first two or three weeks, especially should the arm be carried in a sling. Patients rarely object to this since the relief from pain is the all important consideration; but just as soon as the patient feels well enough to want to use the arm we must be prepared to meet his objections with a splint that is satisfactory. Such a splint should be light in construction, neat in appearance and inconspicuous. The patient should be able to remove and replace it at will, since at this time it may be beneficial to institute a course of massage as tending to more rapid recovery.



The writer submits a splint for this purpose that he has used the last eight years with entire satisfaction. It can readily be constructed by any experienced mechanic. The acompanying illustrations clearly show its make up and manner of use. The *x*-ray plates were taken from a patient



after three weeks' wear and just before the splint was finally removed and replaced by an ordinary wrist strap.

Aluminum strips and leather straps are used in its construction of such weight and size as the case may require. Each intersection is fastened by a single rivet to permit of easy adjustment. The whole is shaped and fitted to the part, and buckled comfortably in place.

Note that this splint meets the requirements above outlined and also permits the limited use of the hand without risk of further injury. It

is not intended to displace the stronger fixation splints, but is rather an auxiliary splint to be applied after their removal, and protects the ininjured wrist through the transition period against undue use of the hand.

This splint appears to be a modification of the Jones's short arm splint. It is intended to be worn some two or three weeks' time, when it can be discarded and an ordinary wrist strap applied and worn until full recovery.

A NEW CONCEPTION OF AMPUTATION.

JAMES PETER WARBASSE, M.D.,
NEW YORK.

The advancements of plastic surgery have made possible a new conception of amputation. The old mechanical attitude toward this subject should be cast aside. The accurately planned lines of amputation which bear the names of the great surgeons of the past should no longer be followed. It is no longer fair to future patients to teach these formulated methods to students of surgery. Our art has outgrown them.

No surgeon should entertain the idea that amputation can be reduced to a matter of rules, or that rules for amputation can be made simple and automatic. Rare judgment is required in determining when to amputate, how to amputate, and where to amputate. Indeed, the question which should more often confront the surgeon is, "Is amputation required at all?"

Amputation should be regarded as a plastic operation rather than as the lopping off of a member. *If there is living tissue beyond the proposed place of amputation, the necessity for the operation should be questioned.* The possibilities of plastic surgery are so great that the surgeon, before amputating, should ask himself, "Can I not excise the disease part and supply the deficiency by grafting?" If the disease is of the bone alone, amputation is utterly unjustifiable because bone transplantation is so effectively accomplished. In the case of tumor of the bone, the diseased segment of bone should be excised, the defect filled by a graft of bone, and the wound closed. For precisely the same reason, the surgeon should ask himself the question which regard to other structures. Bone, skin, muscle, tendons, fascia, blood-vessels, nerves, and joints are all capable of restoration and grafting.

Bone, skin and fascia may be transplanted from other parts. Muscle and tendon may be turned down and attachments changed. New tendons may be constructed. Vessels may be transplanted and grafted. Nerves may be grafted and bridged. Joints may be reconstructed, grafted, or made by interposing fascia between bones.

The principles of plastic surgery may not only be invoked to save the limb, but if the limb must be sacrificed plastic methods may be employed to make the loss as small as possible. The ancient practice in amputations has been to make a sacrifice of perfectly sound limb, including muscle, vessels, nerves and bone—in order to get skin to cover the stump. The competent surgeon must ask himself the question, "Can I not get this elsewhere, and save the muscle, vessels, nerves, and bone which must be sacrificed if I amputate higher?"

It should be borne in mind that when a limb is amputated for disease other than gangrene, the blood supply is usually more than adequate to nourish the stump. It is adapted to nourish not only the stump but all of that part beyond, which has been removed. For this reason the transverse or flapless operation is to be considered always; and the covering of the bone end undertaken with a transplanted flap of skin. In uninfected cases the transplantation may be done at once. In infected cases it may be undertaken later.

It should be borne in mind that it is easier to cut off a limb than it is to put it back or to reconstruct a new one. Rarely is it necessary to make a finished operation at the first setting. To save as much tissue as possible is usually a good rule to follow. Moreover, the surgeon should remember that the higher the operation the greater the shock. A few centimeters one way or the other may determine the difference between life and death. A well covered and symmetrical stump on a dead patient is never a beautiful stump. And so, while the typical methods of amputation are found described in text books on surgery, the surgeon should ever have in mind the lessons to be found in plastic surgery and the grafting of tissues, and make his own variations to suit the circumstances of each individual case and his own skill.

The important point is that, when confronted by a limb suggesting amputation, the operator should banish from his mind the old mechanical conceptions of sacrificing together the diseased and healthy parts with the immediate purpose of creating a perfect stump at whatever cost. He should instead view it with the psychology of plastic and reconstructive surgery.

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WALTER M. BRICKNER, M.D., F.A.C.S., Editor

NEW YORK, JUNE, 1919.

TREATMENT OF FRACTURES OF THE UPPER EXTREMITY WITHOUT SPLINTS.

Dowden, one of the surgeons of the Edinburgh Royal Infirmary, has been treating fractures of the upper extremity without splints for the past ten years, and his results have been so superior to those obtained by the conventional mobilization methods, that a report of his method and results may prove of interest. (Edinburgh Medical Journal, December, 1918). Dowden finds that his patients return to their maximum efficiency sooner than with the older methods, and moreover, never have such complications as stiff joints, delayed union, etc.

He frankly confesses himself a heretic in ignoring the prevalent notion of surgeons that displacement is entirely due to muscular action. He believes that the displacement is due to nothing but force, and that if the force is overcome the action of the muscles in maintaining the displacement can be ignored. Moreover, even if the displacement is due to the action of muscles, he cannot see how splints placed around the limb will prevent a recurrence of the displacement. Dowden cites as an example of the contradiction of this fallacy the conventional operation for bow legs. In such an ostectomy an artificial fracture above the condyles is produced, yet, nevertheless, there is no forward or backward displacement by either the gastrocnemius or the great muscles of the thigh. Dowden watched fractures of the upper extremity through the fluoroscopic screen and could see no muscular displacement when the arm was actively moved.

Dowden describes his method in individual fractures. The various forms of bandages that have been devised for fractures of the clavicle are deficient because they bring the shoulder nearer the median line. Dowden simply allows the arm to rest in a sling, supporting the wrist at a slightly higher level than the elbow. He is encouraged to move his fingers, pronate, supinate, flex and extend the forearm, and to gently move his shoulder joint. These movements should be carried *out just short of pain.* It is surprising to see how rapidly improvement takes place, and how soon the patient can put his arm into a coat sleeve. Fractures of the scapula are treated in the same way, except that in addition passive movements are carried out, especially if the fracture is near the glenoid. Fractures of the humerus are treated in a similar way. The only difference Dowden makes is that for the first few days a pasteur splint is applied to prevent the patient lying on his arm at night. Massage and passive movements are helpful aids. The patient should be encouraged to practice all the movements during the day, increasing the extent of the movements day by day, if he can. The same methods apply to compound fractures, such as were obtained by war wounds. Dowden recites a brilliant result in such an instance. Fractures of the olecranon and of the bones of the forearm are treated in the same way.

Dowden has attempted to apply these principles to fractures of the lower extremity, but thus far has not been able as yet to perfect this method.

Dowden's report is extremely interesting, and sufficiently reasonable to warrant a more extended trial.

E. M.

REHABILITATION.

The excellent results already manifest in the national plan for the rehabilitation of soldiers, sailors, and marines merit the imitation of the scheme and its application to all persons handicapped in industrial life. What federal authority alone could accomplish for the enlisted men requires the separate action of various state legislatures to be made available for workers in general.

The State of New Jersey has taken the lead in creating a Commission for the rehabilitation of physically handicapped persons. A recent enact-

ment defines "physically handicapped" as meaning "any person who, by reason of physical defect or infirmity, whether congenital or acquired by accident, injury, or disease, is or may be expected to be totally or partially incapacitated for remunerative occupation." "Rehabilitation" is interpreted as meaning "the rendering of a person physically handicapped fit to engage in a remunerative occupation." The progressive law referred to provides for a State Commission to consist of the Commissioner of Education, the Commissioner of Labor, the Commissioner of Charities and Correction, and three other members to be appointed by the Governor, who shall serve without pay though their actual expenses incurred in the performance of duties shall be paid out of a state appropriation.

The various phases of the law are well developed, so as to provide for the education and training of those handicapped and provides the maintenance costs during the prescribed period of training. Provision is also made for a social service visitation to those aided and their families for the purpose of giving advice regarding any matter that may affect rehabilitation during and after the period of treatment and training. The state, also, undertakes, through the Department of Labor, to aid in the placement in remunerative employment of those physically handicapped persons so registered with the Commission.

This law possesses unusual significance, in that it is the first to be placed upon the statutes of any state carrying over the experiences of the Federal Government for the advantage of residents within a state. It is a complete recognition of the principle of state obligation and responsibility for the protection and re-education of such of its citizens as cannot ordinarily fulfill their duties to the utmost, and thus constitute a state liability.

The establishment of a Commission of this character undoubtedly will affect profoundly educational institutions and require numerous adjustments in the administration of hospitals and dispensaries. The returns to the state, however, will warrant the expenditures contemplated and result in an improvement in the character of medical and surgical service, owing to the recognition of the fact that mere cure of disease or healing of wounds do not represent the end results most desirable from the standpoint of communal welfare. Hospitals will find themselves making adjustments in their plans in proportion to their awakening to the ideas and ideals stimulating and strengthening the principle of rehabilitation.

The example which has been set by the State of New Jersey deserves emulation, and will undoubtedly create a stronger public opinion demanding reorganization in this direction. It is to be hoped that the surgical profession, appreciating the necessity of work of this character, will assume a certain measure of leadership in bringing about legislative enactments making similar provisions in all the other states which will soon begin to follow the line of action so well begun in the State of New Jersey.—I. S. W.

STIFF AND PAINFUL BACKS.

The diagnosis of the cause of stiff and painful backs demands careful examination, including the use of the *x*-ray. The frequency of these symptoms, after accidents, makes it of particular importance that the exact causation be discovered in order that proper treatment may be instituted. The necessity of unusual care is emphasized in connection with the principles of accident insurance or compensation. Dr. J. W. Sever, at the Fourth Annual Meeting of the International Association of Industrial Accident Boards and Commissions, called attention to the fact that a large number of persons presenting symptoms of stiff and painful backs were suffering from fractures of one or more vertebrae, the so-called crush fractures. Most of the persistent back disabilities were the results of falls, particularly on the buttocks, shoulders, or back, or from landing on the feet from a height, combined with forcible flexion of the spine.

In compression fractures of vertebrae, the anterior portion is more frequently crushed than is the posterior. Dr. Sever produces evidence to show that fractures of the spine may exist in many instances without symptoms other than a lame and stiff back. The reason probably is found in the fact that most of the fractures of this type occur at the level of the first lumbar vertebra.

One would imagine that a diagnosis of fracture of the spine would be readily made by members of the surgical fraternity, though the experience of the Massachusetts Industrial Accident Board has demonstrated that no diagnosis of fracture was made in many instances until after the lapse of four months, and even one year, after the accident. The real criticism is not based upon the difficulty in establishing the diagnosis, but because complete examination of the patient was not made.

Few of the patients with chronic stiffness and lameness of the back present symptoms due to nerve pressure, such as would be evidenced with a complete fracture attended with crushing of the spinal cord. This lack of nerve involvement prob-

ably arises from the fact that the spinal cord ends at about the level of the first lumbar vertebra, the point of greatest frequency of fracture, and thus escapes injury. The residual symptoms of stiffness, lameness, pain, and slight limitation in lateral bending do not entirely incapacitate for labor, but do restrict occupation to light employment.

With the requisite diagnostic skill, the site of the fracture is determined, and treatment by fixation, plaster jackets, or bone splints serves to hasten convalescence and eventually lead to a palliation of the handicapping symptoms.

It is imperative, therefore, to recognize the possibility of a compression fracture in all accidents due to falls upon the feet or back, or, indeed, from the dropping of weight directly upon the flexed spine. The forcible flexion of the spine is an important element in the causation of the compression fracture. While a kyphos is usually present, it does not present its appearance immediately, though it may be detected after callous formation begins. The significant features are the disability for heavy work, the weakness, stiffness, and painfulness of the back. These are a constant source of complaint, and, not infrequently, are regarded as evidence of malingering.

The failure to ascertain the lesion is indicative of insufficient care in diagnostic procedure. Under ordinary circumstances, it would seem unnecessary to devote editorial space to urging the thorough and complete examination of victims of accidents, but in view of the fact that so many compression fractures have been treated for months without having received a correct diagnosis, it appears timely to again call attention to the advantage of complete examinations of injured persons.

The tendency to assume that victims are endeavoring to feign distress in order to beat insurance companies or accident commissions is manifestly unfair. The injured deserve the benefit of every doubt, and doubt must exist unless and until diagnostic methods have been employed to the limit of their applicability.—I. S. W.

HOSPITAL EXPANSION.

The Children's Bureau inaugurated a conference on Child Welfare Standards in Washington as to the first of a series to be held in cities throughout the United States as the formal closing functions of the Children's year. At these conferences were representatives of England, Belgium, France, Japan, Italy and Servia, in addition to leaders in Child Welfare in the United States.

Various tentative standards were adopted for the protection of the health of children, and attention is merited by the type of service demanded in connection with the problems of infant and child welfare. Among the significant features is the emphasis which is placed upon adequate medical and dental care. Beginning with provisions of standards for maternity centers, there is a demand for clinics and maternity hospitals or maternity wards sufficient to provide care in all complicated cases and for all women wishing hospital care. There is a call for the training and registration of household attendants to act under the supervision of physicians or public health nurses for sickness in the home.

Children Health Centers are called for, with special clinics for the teeth, eye, ear, nose, or throat, the venereal diseases, and such other clinics as may be required for the treatment of defects and diseases, to be supplemented by children's hospitals or beds in general hospitals or provision for adequate medical and nursing care at the home. Coupled with these demands is the suggestion of clinics for orthopedic work and for the management of skin diseases, and nutrition classes for subnormal children. A most striking standard is the examination of all typical or retarded children by a psychiatrist.

The complete set of standards indicates a recognition of the needs of hospital development along lines essentially co-operative with the innumerable social agencies aiming to safeguard maternity, to decrease infant mortality, to conserve the health of the children during the pre-school age, and to make adequate provision for the health and welfare for children during the entire period in the educational system. It is significant of the increased strain which is to be placed upon institutions for the promotion of health, either by curative or preventive efforts. The expansion of hospital administration appears to be assured if there is full appreciation by hospital trustees of the sphere of social usefulness which is ever increasing. Obviously, county, municipal, and state institutions will be able to expand their facilities as rapidly as public interest warrants the necessary appropriations.

These transformations in the ideas of hospital systems are thoroughly in accord with the tenets of modern medical and surgical practice. There may be numerous difficulties in the way of enlarging or reorganizing hospital and dispensary plans to meet the social requirements of the modernized theory of practice. These alterations, however,

will soon be accomplished, without disorganizing the existent systems of administration rather by internal improvements and adjustments than by the addition of new structures. The possibilities of redirecting hospital and dispensary energies into these new channels do not afford insuperable obstacles. The most essential factor, however, is to be found in the co-operation and encouragement of the attending staffs, upon whom rests the serious responsibility of accomplishing the desired results in hospitals and clinics. The tentative standards which have originated from these conferences merit the careful thought of all interested in promoting reforms in the interest of hospitals and clinics as well as in behalf of the community to be served.—I. S. W.

Surgical Sociology

Ira S. Wile, M.D., Department Editor.

A Retrospect and Prospect.

The Department of Surgical Sociology is entering upon its tenth year. It is perhaps not immodest to call attention to the fact that when this work was begun, sociological interest in medicine and surgery was scarcely evidenced by any marked percentage of the medical profession. In the original announcement of May, 1910, occurred the following statement: "We believe that the surgical profession should be among the leaders in the movement towards better social conditions. We believe that surgeons are essentially humanitarians and are interested in all projects pertaining to a lessening of the number of accidents and diseases which human flesh is not heir to but has cruelly thrust upon it."

Our belief has been thoroughly justified. With the appearance of the first issue containing sociological discussions, one of our then contemporaries, now unfortunately defunct, commented that the subject appeared to be novel and stimulating, but probably like other innovations in medical literature, it would soon pass out of journal space. Fortunately, this approbation, but not the fear was realized.

The cordial reactions of the profession have been a constant stimulus to the department editor, to continue to interpret social progress in terms of surgery. At the time the department was undertaken, there was no medical or surgical journal addressing itself to the problems which appeared to be so intimately related to surgery in its broadest aspects. There has been a constant aim to emphasize various phases of the relations existing between the needs of society and the responsibility of the surgical profession.

Topics which today are popular and vital, ten years ago were scarcely referred to by surgeon. At the present time, industrial accidents, social insurance, the rehabilitation of the handicapped, the needs for special hospitals, clinics, convalescent homes, the advantages of district nursing, the importance of playgrounds, factory regulation, prevention of blindness, the social conditions affecting pregnancy and parturition, receive extensive attention in publications devoted to surgery, medicine, and, indeed, are almost more common in lay magazines. There were discussions of mental hygiene, occupational therapy, standardization of hospitals, social service work, inebriety, medical education, industrial hygiene, mortality statistics, fire prevention, venereal diseases, rural obstetrics, employers' liability, workmen's compensation acts, delinquency, defectives, hospital ships, preventive medicine, and public health during the first two years of the Department of Surgical Sociology.

The developments of modern surgery along social grounds were foreseen, and in the desire to encourage its rapid development, our columns have constantly reflected the advances made throughout the world.

Much of modern preventable surgery is dependent upon the recognition and understanding of the social and economic causes which in the past have been responsible for a large proportion of physical injury that might have been obviated. Scarcely an up-to-date medical journal exists which does not from time to time publish articles dealing with the interrelation of medical and surgical accidents and diseases and phases of public welfare ordinarily denominated as sociological.

The past decade has witnessed a remarkable transformation in the point of view of modern medicine. The greater emphasis which has been placed upon public health and prophylaxis has led to an awakening of conscience which now seeks to attack every problem at its source. Medicine and surgery have responded magnificently to the urge of public welfare. Marked advances have been noted in medical education, the organization of hospitals and dispensaries, and the systematic development of plans for grappling with specific phases of medical and surgical work as evidenced in the establishment of special clinics, diagnostic clinics and pay clinics, not to mention the co-operation of medical institutions to affect standardization along various lines.

There is every reason to believe that the next ten years will be of more profound influence in fashioning medicine than the ten years that have passed. The experience of the 30,000 men engaged in war work has had a profound effect upon the points of view of those who previously had lived and moved only in the narrow streets of the rural and urban districts. Their outlook is now that of the world. Their understanding of human problems has been intensified; and they are accustomed to thinking in terms of masses of men, rather than in terms of individuals. The shortcomings in their preparation for national service have been appreciated. The failures or weaknesses of medical education are not unknown. Their response to the call for greater attention to public welfare will be more immediate and will be stimulated by greater discretion, sympathy, and wisdom.

In the consciousness that the field of our work has broadened, and that the necessity for its continuance has been established, we shall endeavor to keep before our readers the most important developments in sociology and economics during the years that are to come.

The Departmental Editor desires to express his appreciation of the cordial expressions of good will which have come to him from various sources. He is not unaware of the fact that the successful conduct of a department depends upon the existence of a feeling of sympathy between the writer and the reader. This has been felt, even though personal communications have not been frequent. Contributions to the department have been few in number, but, nevertheless there have been various satisfactory evidences that the Department of Surgical Sociology has supplied a need, and had added somewhat to the usefulness of the profession.

With the first nine years as a foundation, we trust we shall continue to create and strengthen a social viewpoint which shall redound to the credit and usefulness of the surgical profession. To this aim we rededicate the Department of Surgical Sociology as an interpreter of humanity and human relationships, as related to the development of humanitarian surgery.

CREED OF THE DISABLED.

Once more to be useful—to see in the eyes of my friends replaced with commendation—to work, produce, provide, and to feel that I have a place in the world—seeking no favors and given none—a MAN among MEN in spite of this physical handicap.—*Carry On.*

Book Reviews

Prothese Fonctionelle des Blesses de Guerre. By DR. DUCROQUET, orthopedic surgeon to the Rothschild Hospital. One small octavo volume of 236 pages with 218 original figures. With a preface by Professor AUG. BROCA. Paris, *Masson et Cie.*, 1919.

Doctor Ducroquet has given us an excellent compilation of the principles which apply in the correct fitting of a functional prothesis. The monograph comes at the right moment and should be of value to those of us who, for a long time to come will have to look after the results of war injuries.

The work treats successively of the following: The points of fixation good apparatus including the choice of axis and the articular mechanism; apparatus for immobilization; apparatus for limited motion; apparatus for paralyzed limbs, etc. After the discussion of these mechanical principles there is a chapter in which the normal walking and marching movements are analyzed "a la cinematique." This is necessary in order to understand pathologic variations. The concluding chapters apply all of these principles for the various forms of disability.

Squibb's Atlas of the Official Drugs. WILLIAM MANSFIELD, A. M., Phar. D. Dean and Professor of Pharmacognosy and Botany, Union University, Department of Pharmacy, Albany, N. Y.; Late Professor of Biology and Pharmacognosy, College of Pharmacy of the City of New York, Columbia University, and Botanist and Pharmacognosist to E. R. Squibb & Sons, etc. Published by E. R. SQUIBB & SONS, New York.

A handy little volume, dealing with present knowledge of crude drugs is of value to physicians and students of pharmacy and medicine. Dr. Mansfield has succeeded in providing a most excellent and handy book, classifying and describing the various drugs in briefest form. The arrangement is tabular and enriched by a photographic reproduction of the essential characteristics of each one of them. Drugs of animal and vegetable origin are considered, and each chapter contains the essential information concerning the specific part of the drug employed in pharmacy, to indicate the guiding characteristics for determining products of the highest character.

No single book is more complete or possesses greater usefulness as a work of reference in pharmacognosy.

Progressive Medicine. A Quarterly Digest of Advances, Discoveries, and Improvements in the Medical and Surgical Sciences. Edited by HOBART AMORY HARE, M.D. Assisted by LEIGHTON F. APPLEMAN, M.D. *Volume* 1. March, 1919, Surgery of the Head, Neck and Breast—Surgery of the Thorax, Excluding Diseases of the Breast—Infectious Diseases, including Acute heumatism, Croupous Pneumonia and Influenza—Diseases of Children—Rhinology, Laryngology and Otology. LEE & FEBIGER, Philadelphia and New York, 1919.

Beginning with an excellent discussion of surgery of the head, neck and breast by Charles H. Frazier, of which a large part is devoted to considerations of the brain, the present number is rich in information concerning the diseases of children and the infectious diseases, including acute rheumatism, croupous pneumonia, and influenza. The contributors to the volume in addition to Dr. Frazier are Dr. George P. Müller, John Ruhrah, Floyd M. Frandall, George M. Richards. The general high standard of excellency is continued.

The After Treatment of Wounds and Injuries. E. C. ELMSLIE, M. S., F. R. C. S. Brevet Major R. A. M. C. (T. F), Special Military Surgical Hospital, Shephard's Bush; Surgeon-in-charge of the orthopedic, physical exercise and massage depts. St. Bartholomew's Hospital; Surgeon to out-patients, Metropolitan Hospital; Orthopedic surgeon to Queen Mary's Hospital, Roe-

hampton; Consulting orthopedic surgeon to the Foundling Hospital and National Children's Home and Orphanage. Octavo of 323 pages with 144 illustrations. Philadelphia, P. Blakiston's Son & Co., 1919. Price $4.00.

Those of us who will learn most from this war in a medical way will be the neurologists and orthopedists; and most of the work of this kind will be done after the war and will occupy us for years to come. In a general way this statement indicates the scope of this volume: a discussion of wounds of bone, joint and nerve; of the best methods for healing the wounds; of the best methods for regaining all the function it is possible to gain out of a mutilated limb or ankylosed joint. The fund of knowledge exhibited in the book is based on a wide experience and in its transmission to all of us it ought to prove of much benefit.

Essentials of Surgery. A Textbook of Surgery for student and graduate nurses and for those interested in the care of the sick. Archibald Leete McDonald, M. D., The Johns Hopkins University. Formerly in charge of department of anatomy, University of North Dakota; Lecturer on Surgery, Nurses Training, St. Luke's Hospital, Duluth, Minn. Octavo volume of 265 pages and 46 illustrations. Philadelphia and London: J. B. Lippincott Company, 1919.

This book covers the general principles of surgical diseases and the pathological changes which result. Also, under separate headings, the more important surgical lesions of the body are considered. The matter is presented simply, and only general statements are made concerning; etiology; pathology, local tissue changes produced and general effects; natural course of disease; indications for treatment. No attempt is made to discuss technical nursing methods, except special indications for their use.

The Early Treatment of War Wounds. By Col. H. M. Gray, C. B. C. M. G., M. B. Aberdeen, F. R. C. S. Ed., Consultant in Special Military Surgery, late Consultant Surgeon British Expeditionary Forces, France. Small octavo volume of 299 pages. London: Henry Frowde and Howder & Stoughton, 1919.

Little time is available in these busy days for reading multitudinous and long dissertations on the various espects of military surgery, especially so for those among us who must do the work. Many changes have come about from the beginning. And, so, ripe with an experience of three and one-half years, Colonel Gray gives us, in as short as possible a space, a very full and very accurate account of all the essentials that the younger and the older surgeon need know about correctly and efficiently taking care of war wounds.

The plan of the book follows the road the wounded man travels from the front to the rear. Much is given of the initial treatments, of the care of shock, of the different kinds of antiseptics and dressings. A valuable chapter deals with the principles of treatment. Finally special chapters are given devoted to the brain and spinal cord, to the thorax, and to compound fracture of the femur.

The volume should prove very valuable to military men.

Lice and Their Menace to Man. Lieut. L. Lloyd, R. A. M. C. (T), Chief Entomologist in Northern Rhodesia. With a Chapter on Trench Fever, by Major W. Byam, R. A. M. C. London, Henry Frowde, Hodder & Stoughton, Oxford University Press, Warwick Square, E. C. 1919. Pp. 136.

The miserable pediculus has been dignified to the position of a creature of importance in view of our experience with it under war conditions. The publication of a monograph upon this subject is most welcome. From every point of view the subject matter is most satisfactory. The range of material involves the structure of life, history, and habits of the body louse, with chapters on its dissemination and disinfestation. The head louse and crab louse also receive brief, but adequate treatment.

From the medical standpoint, the three concluding chapters dealing with relapsing fever, typhus fever, and trench fever are of the greatest importance, and afford an excellent résume of our present-day knowledge, and their dependence upon lousiness.

The purpose of the volume is to supply an adequate degree of information for the general reader, and does not aim to serve as a heavy compendium of information for those who have specialized in conditions relating to the natural history of the louse, or in the diseases which may be occasioned by its presence.

Incidentally, it may be stated that the typography is unusually creditable.

The Disabled Soldier. Douglas C. McMurtrie. Director, Red Cross Institute for Crippled and Disabled Men. President, Federation of Association for Cripples. Editor, American Journal of Care for Cripples. With an Introduction by Jeremiah Milbank. Vice-Chairman, Committee of Direction Red Cross Institute for Crippled and Disabled Men. New York, The Macmillan Company, 1919. Pp. 232. Price, $2.00.

The problems of rehabilitation have given rise to much discussion with reference to methods and values of retraining handicapped adults. While McMurtrie's volume is entitled, "The Disabled Soldier," the title might just as well have been extended to cover "Disabled Adults Whether in Military or Civil Life." The book is a most valuable compendium of recent experience in England, France, and the United States, and individual chapters have been carefully checked up by individuals whose experience warranted that consultation as special authorities.

Particularly commendable and advantageous is the literary form which has been employed, which aids greatly to the readability of the volume, and which makes its assimilation a great pleasure.

From a technical standpoint, the chapter headings represent more the type employed in a modern novel, and do not indicate sufficiently the exact nature of the subject matter. This is a serious defect in view of the fact that there is no index to enable one to find easily any specific facts or any indications of where information is located in the book. The wide field of information which is traversed warrants, however, a careful reading of the book, and, in all probability, this has been relied upon to offset the disadvantage in structure. The illustrations are well selected, and excellently reproduced. All those interested in restoring handicapped individuals to their potential usefulness will find a wealth of suggestion, fact and inspiration in this splendid and illumining volume.

Surgical Clinics of Chicago. *Volume* 3, *number* 1. 276 pages with 275 illustrations. W. B. Saunders Company, Philadelphia and London, February, 1919.

This volume follows in the lines of its predecessors and contains a number of very excellent clinics all of which are written in their usual excellent way and are amply illustrated. Deserving of special mention are the clinics of Dr. Beck, Major Kellogg Speed, Dr. Bevvan and Dr. Orth.

Books Received

Colloids in Biology and Medicine. Prof. H. Bechhold. Member of the Royal Institute for Experimental Therapeutics in Frankfort A. M. Authorized Translation from the Second German Edition, with Notes and Emendations, by Jesse G. M. Bullows, A.B., M.D. Assistant Clinical Professor of Medicine, Fordham University, Adjunct Professor of Clinical Medicine, New York Polyclinic School and Hospital, Visiting Physician Riverside Sanatorium, Associate Visiting Physician, Willard Parker Hospital, New York City. 54 Illustrations. New York, D. Van Nostrand Company. Pp. 464. Price, $5.00, Net.

Progress in Surgery

A Résumé of Recent Literature.

The Importance of Diagnosis in Pelvic and Abdominal Surgery and Some of the More Common Errors. E. E. MONTGOMERY, *American Journal of Obstetrics, etc.*, March, 1919.

Montgomery believes that the following forces are at the command of the surgeon for correct diagnosis:

1. A carefully written history of the previous health of the individual and the course of the present illness.

2. A careful study of the affected organ and its physical signs as well as those originating from organs remote which may possibly exercise a baneful influence, and which often present a group of symptoms similar to those arising from actual disease of the considered organ.

3. The chemical and microscopical study of the blood, secretions and excretions.

4. The employment of the Röntgen rays.

He emphasizes the importance of carefully examining the pelvic organs and the gastro-intestinal tract in simple hemorrhoids before operating. The investigation of the rectum by palpation should be a routine part of the first examination of every woman suffering from pelvic disease.

The most frequent seat of error in diagnosis is found on the right side of the abdomen, especially in regards to appendicitis and inflammatory conditions of the tube, eitopic gestation with or without rupture, torsion of the peduli of an ovarian or broad ligament eyst, disease of the ureter, disease of the right ureter or the passage of calculi, or empyema of a dragging gall-bladder. A brief differential of these various conditions follow.

The diagnosis of pelvic tumors may also be a point of confusion for the surgeon but careful examination will usually reveal the true nature of these growths.

Contraindications to the Use of Hydrostatic Bags in Obstetrics. E. T. HULL, *American Journal of Obstetrics, etc.*, March, 1919.

Hull does not intend to minimize the usefulness of bags in well-founded indications, such as cases of accidental hemorrhage, eclampsia, incomplete placenta previa, certain cases of dry labor, and occasionally overgrowth of fetus after a number of pregnancies. But great care as to the condition of the mother, the condition of the cervix, uterine inertia, complications such as severe hemorrhage, threatened edema of the lungs, tonic uterus or ambe failure of cardiac compensations should be taken.

Contraindications are a rigid cervix, uterine inertia, where great haste is necessary in the complications mentioned above, a contracted pelvis with a true conjugate of 7-7.5; complete placenta previa with a viable child and the presence of virulent infection of the external genitals or vagina.

Hull assails the routine use of the bag at term for "delivery by appointment." There is a considerable danger in its use, even in selected cases. To prevent dystoria from soft parts in normal cases, avoid the introduction of a bag before the lower segment is prepared, and better, allow spontaneous labor to institute itself. We have no means of determining in an unborn child the degree of vitality it possesses, or whether it has developed its functions sufficiently to take up its extrauterine existence. Prematurity is frequently present in these babies who do badly in spite of every up-to-date facility for care, and may be the result of bagging for premature induction or a mistaken estimation of full term.

Control of Nausea and Vomiting of Pregnancy by Intramuscular Injections of Corpus Liteum Extract. J. C. HIRST, *American Journal of Obstetrics, etc.*, March, 1919.

Based upon the theory that there is a deficiency of corpus luteum absorption during the period of nausea and vomiting, Hirst has injected the extract intramuscularly into 111 private patients. In the average case, a dose of 1 mil. every other day for 5-6 doses is sufficient for response, especially when the nausea is on the decline. In the more severe cases, where nausea is constant, 1 mil. daily for from 12-15 doses should be administered. Rest and curtailment of activity are essential during the period of treatment. All injections are given deep into the muscle. Hirst uses the deltoid.

Ninety-nine of the 111 were entirely relieved or made comfortable. Four were made distinctly worse by the treatment. Of eleven cases of pernicious vomiting, five failed to respond to treatment. There was also a marked sedative action, obtained in markedly neurasthenic cases. He is now giving a routine series of twelve doses, a smaller amount usually allowing a return of the nausea. If no effect is obtained by this number, it is not worth while to persist. In favorable cases, relief usually comes suddenly after the fourth or fifth dose.

The ideal material for use would be of human origin, but this is impracticable. The commercial extract is prepared from the ovaries of sheep, cow or pig and about 90 per cent. of the animals are pregnant.

Induction of Labor by the Use of Bougies. C. FOULKROD, *American Journal of Obstetrics, etc.*, April, 1919.

After making complete trials of all the known methods, Foulkrod has been using the following method for two years:

Two silk bougies are ussed with or without iodoform packing. The cervix is dilated sufficiently by the fingers so that two fingers can be introduced anteriorly to the child's head and so that the bougies can be watched entering the uterine cavity without bending. The membrane around the internal os is also carefully separated. The bougies, well lubricated, are then passed up between the membrane and the wall of the uterus without membrane puncture. When two bougies are so placed, the cervix and vagina are packed with gauze.

The patient is then returned to bed and the onset of the labor awaited. If it doesn't occur in two days, the bougies should be changed.

Multiparae generally react much better than primiparae, pursuing a regular course of labor securing complete dilatation with spontaneous expulsion of the child. Primiparae have a more tedious process. The author uses a dose of morphia at the crest of the pains, not enough to stop the labor but sufficient to relax the cervix. If this fails small doses of strychnine combined with codeine are given hypodermatically every three or four hours which results eventually in bringing the head through the cervix into the pelvis ready for delivery.

The Status of Uterine Curettage Based on Hospital Records. R. M. RAWLS, *American Journal of Obstetrics*, April, 1919.

From figures based on the work at the Women's Hospital in the last eleven years, Rawls shows that curettage has been done too frequently upon the slightest indication and as a cure-all in gynecology in the past. About 96 per cent. of gynecological cases show no endometrial changes and therefore curettage is unnecessary. In only about 4 per cent. showing endometrial changes is the proceedure of questionable therapeutic value. As a diagnostic measure it is of practical value in only 5.1 per cent. of carcinoma of the uterus. When curettage is performed in a hospital and by skilled operators, there is a morbidity in at least 5.5 per cent.

Water Accumulations in the Foetal Abdomen Obstructing Labor. W. A. N. DORLAND, *American Journal of Obst. and Dis. of Child.* April, 1919.

Dorland emphasizes the fact that the term "fetal ascites" has been used to include a number of pathological entities. The following distinct conditions are now recognized:

I. An accumulation of serum in the fetal peritoneal cavity—true "fetal ascites."

II. A collection of fluid distending the urinary tract of the fetus (bladder, ureters, and venal pelves) comprising the so-called "retention of fetal urine."

III. A collection of fluid in the tissues of the fetal body (head, trunk and limbs) forming the condition known as "general anasarca of the fetus," "general edema of the foetus," or true "fetal dropsy."

IV. Cystic degeneration of the venal structure of the fetus—"congenital cystic kidney."

V. Cystic degeneration of the fetal liver.

VI. Fluid distention of the genital tract of the fetus (vagina, uterus and tubes.)

Very complete discussion of the various conditions are entered upon. A case of the first group is reported.

The treatment of these cases consists primarily in traction. If this fails, aseptic puncture of the fetal abdomen or thorax is indicated. Too much importance cannot be laid upon the early recognition of the cause of the obstruction followed by prompt operative interference. A complete bibliography is attached.

A Nonoperative Procedure for the Treatment of Cervicitis and Endometritis. A. R. HOLLENDER and W. M. GRATIST, *American Journal of Obstetrics, etc.*, April, 1919.

If there is an erosion of the cervix, an initial application of 40 per cent. silver nitrate to the eroded surface and into the cervical opening is made. One dram of Beck's bismuth paste (a mixture of 10 per cent. bismuth subnitrate and 90 per cent. vaseline) is then injected into the cervical canal either by means of a glass intrauterine syringe or a special metal syringe. The paste must be cold so that it won't pass upwards into the Fallopian tubes. As a rule from two to four injections weekly will effect a cure in a comparatively short time. There is no danger in the use of freshly-prepared bismuth paste gauze for vaginal packing.

A pregnant uterus is an absolute contraindication for these injections since abortion will be caused. Of twenty-one cases treated by the authors since their preliminary report, all but four have already been discharged as cured.

Needless Operations. J. O. POLAK, *American Journal of Obstetrics*, April, 1919.

Polak decries the growing multiplicity of needless operations, done without proper indications, or with faulty technique or principle. He believes that the following are the reasons for this promiscuous and indiscriminate operating:

First—Defective training, not only in general medicine, but in pathology, diagnosis and in the clinical course of disease.

Second—Careless preparation and lack of careful diagnosis.

Third—Poor technic, especially as shown by "follow-ups."

Fourth—Poor judgment, with lack of proper conference with medical confreres.

Late Results in Stomach Surgery. ARNOLD SCHWYZER, *Minnesota Medicine*, April, 1919.

This paper gives Schwyzer's end results for stomach operations. Of 26 cases of carinoma 5 are living after intervals of from 3 to 13½ years without recurrence. In the benign (ulcer) cases gastro-enterostomy yielded good results in pyloric ulcers, in 19 of 22 cases. and in duodenal ulcers in 17 of 19 cases. Schwyzer believes that if the latter cases go one year without symptoms the likelihood of the good effect persisting is very excellent. Of five pyloroplasties one was moderately and one greatly improved, 2 were cured.

Carcinoma of the Small Intestine. E. S. JUDD, *Journal-Lancet*, April 1, 1919.

Carcinoma of the duodenum is much less frequent than that of the small intestine in the Mayo series, in contradistinction to other reported statistics. About 70% of all duodenal carcinomas are at the ampulla, but the exact point of origin is frequently difficult to determine; the origin may be the mucosa of the ampulla or ducts, or the head of the pancreas. Carcinoma occurs in the jejunum either as a degenerated polyp or as a ring tumor; the same varieties occur in the ileum. Cases of multiple growths in the small intestines have been often reported; several have been present in the series reported by Judd. Tumors may coexist in the stomach and small intestine, or in the small and large intestines. The series consists of 24 cases; these are compared with 1.689 cases of stomach carcinoma and with 1.822 cases of carcinoma of the large intestine occurring in the same period of time.

Duodenectomy. J. J. MOOREHEAD AND H. E. LANDES, *Journal American Medical Association*, April 19, 1919.

A new experimental method of duodenectomy has met with some success at the Hull Physiological Laboratory, University of Chicago. The authors give the nerve supply and physiology of the organ and review the former attempts that have been made for its experimental extirpation. The difficulties that have been experienced probably gave rise to the supposed vital function of the duodenum, and the variety of methods used indicates the obstacles encountered. Their method is described in detail, but does not lend itself well to abstracting. It is performed in three stages, with a two weeks' interval between the successive operations. In the first stage the gastro-enterostomy is performed with closure of the pylorus, and gastro-jejunostomy. The biliary and pancreatic secretions are preserved by transplantation of the bile duct and the major pancreatic duct into the jejunum, which is thus made a substitute for a duodenum. Lastly, the duodenum itself is removed after having thus been put out of use. They have operated thus on dogs, which survived in normal health, and they conclude therefore that the duodenum is not essential to life.

Gastric Hernia. C. C. BOOTH, *JJournal American Medical Association*, March 29, 1919.

The report of a case of hernia of the entire stomach through a 1½ inch stab wound received in a drunken brawl. The tumor was about 10 inches in diameter, strangulated and almost spherical. It was raised on each side as far as possible, with the patient etherized, and the skin painted with a 5 per cent. solution of iodin and the lower edge enlarged. The stomach was then gradually restored to the abdomen, the wound cleansed with iodin and closed. The patient made an uneventful recovery, with the exception of a stitch abscess that caused some delay in complete healing.

Rupture of the Mediastinum. C. A. WILSON and R. G. JONES, *American Review of Tuberculosis*, March, 1919.

Wilson and Jones report the following case from the New Mexico Cottage Sanatorium, Silver City, New Mexico: A woman with far advanced tuberculosis confined largely to the right side was treated with artificial pneumothorax, receiving injections every three to ten days days from November to January. At each operation a small pocket was encountered and small injections produced high positive pressure so that no progress was possible. On January 23, 1918, an injection of air was attempted. About 150 cc. raised the pressure to high positive. A little more was given and a distinct snap was heard by the operator, nurse and patient. This was considered to indicate the breaking of an adhesion, for thereafter 350 cc. additional flowed freely into the chest with greatly reduced pressure. *x*-ray examination then revealed a small pocket of air on the right with firm adhesions between the lung and diaphragm. A larger pocket of air was to be seen on the left side and undoubtedly there was a communication between the right and left pleural cavities. The authors give their reasons as to why they consider the case one of air-communication through a ruptured mediastinum rather than one of double spontaneous pneumothorax; and mention that they have been unable to find the record of a similar case in the literature.

Bladder Perforations Seen at the Front. CAPT. GEORGE F. CAHILL, *International Journal of Surgery*, April, 1919.

Bladder wounds are caused most commonly by high explosive shell fragments, next commonly by bullet or fragments of hand grenade. Perforations were seen from any angle or direction, through chest, abdomen, pelvis, etc. All intraperitoneal wounds were associated with visceral injury most commonly of the small intestine, the major part of the injury then being intraperitoneal. The condition of the patient had great influence, and the chances of success were better the sooner they were operated upon. The mortality ranged from 30 to 70 per cent. Extraperitoneal wounds were

less common and comparatively easy to diagnose. In the recent cases of the latter type repair of the bladder wound extraperitoneally, with removal of all foreign material and catheter drainage gave good results.

Plastic Repair of Urethral Defects by Venous Transplantation and Mucous Grafting. J. TANTON, Paris, France. *Urologic and Cutaneous Review,* May, 1919.

The literature concerning this question is discussed very fully and the author describes his own results with transplantation of venous segments as very good. For the success of the operation rigod asepsis is essential. Jones has also reported attempts to restore a urethral defect by making use of an appendix. One case is described where a defect was made good by a graft of vaginal mucous membrane obtained during the course of a vaginal plastic operation; an excellent result was obtained. Good results were also reported by Schmieden.

The x-Ray Treatment of Tubercular Epididymitis and Orchitis. ABRAHAM HYMAN, *Urologic and Cutaneous Review,* May, 1919.

A preliminary report is given of the results of x-ray treatment of tuberculosis of the testicle. These were so gratifying as to encourage the writer to have other cases treated by the same means.

Varicocele. W. A. ANGWIN, *Journal American Medical Association,* March 29, 1919.

Varicocele is a frequent cause of disability in the navy, on account of the complaints of reflex or psychic nature attributable to it. Size alone is not an indication for operation, as it is frequently symptomless, while local plan or psychic disturbances, anxiety or worry over a possible defective genital condition may warrant an operation. The operation is divided by Angwin into six steps: the incision; the bringing the spermatic veins in view without disturbing the vas or its circulation; use of crushing hermostats to the veins; securing the cord with a nonslipping ligature; the further disposal of the cord; closing the supercial tissues, and providing suspension of the testicles. Most operative methods include the lifting the cord from its bed which increases the postoperative induration. Induration, itself, should be a rare sequel. The spermatic artery is excised with the spermatic veins without attempting to separate it. He quotes the authority of Bevan as to there existing two sources of blood supply for the testis, namely the spermatic vessels, and the other vessels accompanying the vas, either of which suffices.

Thoracic Injuries. H. LILIENTHAL, W. M. BRICKNER, and W. A. KELLOGG, *Journal American Medical Association,* March 22, 1919.

A report of their work at Evacuation Hospital No. 8, during the forty-nine days of their stay. Two hundred and fifty patients were treated and a total of 340 operations performed. There were sixty-seven cases of thoracic injury, or about 27 per cent. of the total. The hospital was well equipped with laboratory and operating rooms, and the asepsis was as perfect as could be expected. Most of the patients arrived within twenty-four hours of receiving their wounds, the shortest period being about four hours and the longest six days. About one-third were in shock on admission, and a certain degree of vital depression, hardly amounting to actual shock, was present in nearly all, and they might be considered as poor risks in a general way. Hence the attempt to extract all foreign bodies was abandoned early, and the free exploration of the thoracic cavity was reserved for cases that had undergone such damage as to make early repair necessary. The complication of fractured ribs may be considered one of the most dangerous in thoracic wounds. It invariably leads to infection, especially when spicules of the bone have entered the lung. Great care was, therefore, taken to clean up splintered ribs and extract loose fragments in every open sucking wound; that is, those in which there is a free access of air to and from the lung through the wound. Probably the simplest method to overcome the condition for the time being is by simple skin suture or by firmly covering the wound with soaked wet gauze. Large, sucking wounds presuppose gross injury to the lung and other structures, besides the probable implantation of infected material. The mortality in such open, sucking cases is 40 per cent. Penetrating wounds, leaving the missile in the chest and no wound of exit, give a mortality of 30 per cent., while perforating wounds with entrance and exit had a mortality of only about 10 per cent. These patients generally suffer little and there is no call for large operations, especially with wounds from hot, machine-gun bullets striking the chest squarely and not tangentially. Estimation of mortality, however, from work solely at the front can hardly fail to be misleading. Bullet and shell fragments injuring the thorax were very similar in their mortality rate. There were twenty-two bullet wounds with twenty-seven per cent. of deaths, and sixteen shell-fragment injuries with 25 per cent. mortality. Bullets striking the ribs at a slant inflict injuries of great magnitude. Several cases are briefly detailed. The diagnosis of hemothorax is easy, especially in recent cases. Flatness on percussion with strong voice conduction are characteristic, and the fluoroscopic examination is confirmatory. A recent hemothorax, not requiring a cutting operation, may be treated by emptying it with a trochar and a cannula. This procedure is described later. In the intelligent after-treatment of chest injuries, fluoroscopy in the vertical posture is a necessity. To locate foreign bodies, ether or local anesthesia had to be used in most cases, as the nitrous oxid apparatus could not be secured until ten days before the departure of the team. The operative procedures are described in a general way, and a number of cases are reported in more or less detail. The authors close with the following conclusions and remarks on an acute traumatic atelectasis which they cannot explain and suggest animal experimentation for this purpose. The theory is also advanced that this is a true spastic condition of the lung caused by visceral muscular contraction, often an effort of nature to draw the lobe away from a point of local irritation. "Conclusions: 1. The wounds seen in evacuation hospitals may be divided into two classes: (A) Those which demand repair of obvious injuries to the chest wall, such as large open wounds or extensive fractures of ribs with probable injury to lung. (B) Injuries to the lung, or large foreign bodies in the thorax which demand exploration. Wounds in Class A should be treated on ordinary surgical principles and the wound closed as well as possible. In the presence of large defects in the pleura, stopping the opening by suturing the inflated lung as a plug should be performed when there is not sufficient other tissue for the purpose. Wounds in Class B should be operated on by what I have denominated major intercostal thoracotomy without resection of ribs. With the aid of a well constructed rib retractor an ample opening can be made through which all parts may be clearly inspected and through which operations on the lungs, diaphragm and most parts of the chest wall can be performed with comfort to the operator. In concluding the operation the ribs may be easily brought together and the pleura fully approximated by three pericostal sutures of absorbable material (kangaroo tendon or chromicized catgut). Whether or not there should be approximation of the skin is a matter to be decided in each case. 2. There may be combinations of Class A and Class B by extending an already large wound in any part of the chest. The principle of visual exploration with the aid of a rib spreader can be here applied. 3. Some kind of forced anesthesia, such as the intrapharyngeal method already referred to, is absolutely necessary in treating recent wounds of the thorax by full exploration. 4. All thoracic wounds should be under observation for not less than ten days at the evacuation hospital, and, even then, we are not sure that complications, mechanical or by infection, may not occur at a later period. 5. Pneumonia of the opposite lung is the greatest immediate danger in these cases. While its cause is unknown, we should guard the patients against cold and exposure, especially during the change of dressings."

Defibrination of Blood. F. H. K. REYNOLDS. *Journal American Medical Association,* April 12, 1919.

Reynolds suggests an apparatus for the defibrination of blood which he has found to give excellent results. It consists of a simple Erlenmeyer flask with a cork to fit

and a special or a piece of looped wire, attached, preferably of copper. When the blood has been aseptically introduced into the glass the latter is shaken vigorously with a motion like that of ringing a bell. After sufficient shaking, the cork is removed, and the fibrin closely adhering to the loop or spiral of wire, the defibrinated blood is left in the flask.

Magnesium in Cancer. S. ITAMI, *Journal American Medical Association*, March 29, 1919.

Itami notices a recent article by Dubard recommending the use of magnesium salts for patients after operation for cancer to prevent recurrence, and recalls former similar recommendations. He remarks that it is fortunate that experimental cancer research permits such suggestion to be tried out in the laboratory where animals are available, rather than testing them at the risk of human life. He mentions three types of mouse cancer, two of which are transplantable. One of them (Bashford's 206) often recedes after several weeks' growth. He found that the intravenous injection of magnesium chlorid, even in doses relatively five or eight times as large as that fatal for man, was without effect on this type of mouse cancer, although two or three treatments were given within two or three days. Not only were there no tumors cured in 175 animals but in one, which was being injected with a view to preventing if possible the recurrence of a spontaneous neoplasm, previously extirpated a secondary growth appeared about three weeks after the eighth injection, and furthermore a new spontaneous tumor arose during the treatment. The true carcinoma nature of the tumors in all cases was tested microscopically. Since mouse carcinomas are quite comparable to those of men in their behavior, these results would seem to throw doubt on the value of magnesium in the treatment of human neoplasms. In fact, Itami says, the assertion may be ventured that it is useless for such a purpose.

Fractures Considered as Potential Deformities. M. S. HENDERSON, *Minnesota Medicine*, May, 1919.

Following a fracture of the shoulder joint the common disability is lack of abduction and external rotation; in the region of the elbow, lack of flexion; and in the wrist the characteristic fork deformity with inability to close the fingers firmly. A fracture in the hip does not unite unless adequate fixation is provided. A supracondylar femoral fracture limits flexion and extension and interferes with proper weight bearing. Pott's fracture produces bad weight bearing power by the valgus deformity. All of these are potential for any of these fractures and should be guarded against by proper reduction and alignment of the fractures.

Gunshot Injuries to the Joints. ROBERT B. OSGOOD, *Journal of Orthopedic Surgery*, May, 1919.

The essentials of the treatment advised include:

1. Fixation and traction applied early and thoroughly and continued in transport until a hospital is reached.
2. Early careful examination, radiographic, bacteriological, and clinical, at the earliest possible moment. This should be done by a competent person able to operate immediately and in good surroundings not far from the line where the patient can remain under close observation until convalescence is established.
3. Primary, delayed primary, or secondary closure of the wound in all operative cases by a special technique now sufficiently well established to be regularly followed which in secondary closures involves a thorough knowledge of the Carrel-Dakin technique.
4. Expert after-treatment to assure most perfect function.

The Mensurgraph: A Method of Measuring and Plotting Orthopedic Deformities by Photography. THERON WENDELL KILMER, *Journal of Orthopedic Surgery*, May, 1919.

The method is a photographic one which by the aid of an ordinary plotting sheet is enabled to record the degree of any deformity when originally seen, and, by comparison with subsequent similar observation, to record any progression, or retrogression, or other change of the abnormality.

Impairment of Function of the Hand Due to War Injuries. CARLETON R. METCALF, *Journal of Orthopedic Surgery*, April, 1919.

One must distinguish between old and recent wounds. With recent wounds especially of the soft parts primary or delayed primary suture is the method of choice. Joints which are involved in any way are treated by daily movement and massage. Joints so extensively involved as to make ankylosis certain are to be placed in the most useful position. In old cases benefit may be sometimes seen after gradual mobilization. Joints involved only because of invalidated tendons are occasionally helped by tendon transplantation followed by mobilization. If mobilization is impossible amputation is occasionally necessary. A simple method for differentiating nerve lesion and organic from the functional is described. It is emphasized that proper preparation of a territory for a nerve recovery by stimulation, massage and proper splinting. The prevention of contractures is all-important.

Tonsillectomy in Myositis. H. I. LILLIE and H. R. LYONS, *Journal American Medical Association*, April 26, 1919.

Lillie and Lyons discuss 200 consecutive cases in which operation by tonsillectomy was performed for myositis and arthritis. That the tonsil is a focus of infection is generally recognized, and the present paper is a survey of results reported in answers to letters of inquiry sent out to 400 patients who had been consecutively operated on. The answers of the first 200 were accepted as sufficient data. The authors recognize the fact that the time element and the improvement that sometimes follows without treatment should be considered. The series includes all types of cases from the mild myositis to the severe deforming arthritis of infections origin. The cases were all operated on between July 1 and Dec. 31, 1917. Eighty-seven of these patients were aged 30 years or less, and 113 were 31 or more. Of the first group, 71 were better after tonsilloctomy, and 88 of the second group or 113 patients, thus indicating that as the condition becomes more chronic less benefit is derived from the operation. The average age of patients who have reported their condition worse was 40 years, and the duration of the myositis or arthritis in all the cases ranged from a few days to 39 years. The average duration of the cases improved by tonsillectomy was eight years. Four of the ten whose condition was chronic and who were invalids at the time of operation reported improvement. In the cases of pyorrhea or tooth-abscess, shown clinically and by roentgen ray, 81.4 per cent. were improved and 45.4 per cent. had no dental work done, while in 18.6 per cent. of the patients who were the same after tonsillectomy, 12 per cent. had had dental work done besides. Too much emphasis cannot be placed on the care of the teeth in the cure of these patients. The size of a tonsil is of variable importance as an indication for tonsillectomy. "In the Mayo Clinic reports and advice on tonsils are based on three main factors: (1) the result of properly expressing tonsillar crypts with a tonsil explorer: (2) the tonsil history, and (3) the patient's symptoms. The size of a tonsil is estimated on a scale of 1 to 4; 1 represents the submerged tonsil; 2 the tonsil that is just visible; 3 the tonsil presenting in front of the tonsillar pillars, and 4 the very large obstructing and pendulous tonsil." In the present series the average size was 2, those just visible in the cursory examination of the throat and which are generally looked on as harmless. In 6 per cent. of the 200 cases, a tonsillectomy had been attempted elsewhere without improvement, thus showing the importance of a clean tonsillectomy in all cases. An account is given of the previous history of the disease for which the tonsillectomy was performed, and in the entire series only 57.7 per cent. of the patients gave a previous history of tonsillitis. A special study was made of twenty-eight selected patients, who had a severe form of chronic infective arthritis. Their average age was 37 years, and the duration of the disease from ten months to eight years. Of

these, 16 per cent. reported improvement. The authors summarize their conclusions as follows: "1. It is justifiable to advise a tonsillectomy in every frank case of myositis or arthritis. 2. A marked improvement may be assured from tonsillectomy alone in 79 per cent. of all cases. 3. It is necessary to remove all possibility of dental sepsis; by so doing a larger percentage of patients will be improved. The duration of the myositis or arthritis is a factor in the ultimate results, although benefit and even complete cure is obtainable in some long-standing, chronic cases. 5. Forty per cent. of the patients with chronic myositis or arthritis who are invalids will respond favorably to tonsillectomy. 6. The size of a tonsil has no bearing on its possibility as a focus of infection. A careful expression of the tonsillar crypts and a history of throat trouble associated with or not associated with the myositis or arthritis is essential in the diagnosis. 7. An absence of a history of diseased tonsil in no way eliminates the organ as a focus of infection. 8. A clean tonsillectomy, with the removal of the plica tonsillaris, is necessary in every case."

Varicose Veins. F. W. KAPPELMAN. *Journal American Medical Association,* April 26, 1919.

Describes a method of treating varicose veins by injection of hot sodium chlorid into their lumen. He says he realizes the responsibility of introducing a new surgical method and mentions the discouragements he received on describing the methods to others. The object is to obliterate the lumen of the vessel in situ by destroying the intima and causing complete atresia of the vein. Of the problems to be solved, the more important were: (1) the minimum temperature at which the sodium chlorid solution (3 per cent.) could give the proper results; (2) how to keep the blood out of the vessels during its introduction, and (3) how to prevent embolism. Each of these problems has been met successfully from the first, except the temperature, and this had to be tried on the patient. He therefore used the solution at the boiling point in his first operation. The result was not ideal because there was extensive sloughing of the surrounding tissues, but no ill effects otherwise. This showed that he could introduce solutions hot enough to produce the desired result. In the next two cases a temperature of 185 degrees was used, which was still too hot, as a small amount of sloughing occurred at one point. Since then he has employed it at 160 with perfect results. He describes his technic, in full, with all precautions used, the detailing of which does not lend itself readily to brief abstracting. The advantages claimed for it are as follows: "1. The operation requires only a few minutes; hence a short anesthesia. 2. It is less tedious. 3. It is as easily accomplished in the presence of a large amount of panniculus adiposus as in its absence. 4. It involves a minimum amount of cutting. 5. It is cosmetically ideal. 6. The nerves are left intact; there is no dead sensation. 7. The lymphatics are preserved. 8. There is absolutely no pain after the operation. 9. The length of stay in the hospital is reduced to a few days."

Biologic Principles in Surgery. J. S. HORSLEY, *Journal American Medical Association,* May 3, 1919.

Horsley says that it cannot be too often emphasized that surgery should be more of a science than an art. Skilful operation is merely good artisanship, but the application of scientific principles may make a bungling operator more of a success than the merely skilful one. The ideal surgeon should be thoroughly imbued with the scientific principles of his work and not be merely mechanically skilful. He gives instances of the physiologic principles that should be kept in mind, such as the importance of healthy blood in the cure of tuberculous peritonitis and in the treatment of slow or threatened gangrene, and mentions that the surgery of the gastro-intestinal tract, in operations such as gastro-enterostomy, still suffers from our lack of acquaintance with the actual biologic principles involved. The work of Cannon and Murphy in their studies of peristalsis has not received proper attention. A common and interesting problem in surgery is that of drainage. The mechanical measures that are followed by good results would seem ridiculous were there no biologic principles involved. The whole method of drainage really depends on the reversal of circulation in the local lymphatics, and is chiefly a biologic process—Nature's efforts to exclude a foreign substance. There are many problems in neurologic surgery that require knowledge of physiology to be settled satisfactorily, and Horsley refers to a physiologic extirpation of the gasserian ganglion as demonstrated by Spiller and Frazier as an instance. He also states that the fashion for plating fractures, which had no reason for its existence except that it was a mechanical method, is going out of use; its rejection, owing to the recognized bad effects of inclosed foreign bodies, he regards as fortunate. The emotions are mentioned also as having an effect bearing on surgery, and transplantation of organs and skin-grafting as dependent on biologic laws and their recognition. Real progress in surgery lies not so much in cultivating the art as in recognizing its dependence on biologic facts and their application to every proposed operation.

Note Sur l'Efficacité des Injections Hypodermiques de Sérum Polyvalent de Leclainche et Vallee Dans Quelques Affections Septiques Locales. (A Note on the Treatment of Some Local Infections with the polyvalent serum of Leclainche and Vallée.) ANTOINE BASSET: *Revue de Chirurgie,* May-June 1918.

Basset has seen very good results follow the use of this serum in 16 cases distributed as follows: 9 cases of acute lymphangitis with adenitis; 1 case in an amputation stump; 4 cases of furunculosis: 1 case of multiple wounds recently treated by regularization, excision and primary suture; 1 case of phelbitis after appendicectomy.

Influenza Alopecia. M. J. MORRISSEY, *Journal of Cutaneous Diseases,* March, 1919.

Attention is called to the great frequency with which alopecia diffusa has followed influenza infection in the present epidemic. It occurred in Morrissey's cases as early as two weeks after the subsidence of the fever and as late as four to six weeks. It is not determined whether the condition is due to the influenza toxin per se, or to it in combination with a preexisting seborrhoea.

Isohemagglutination Groups. N. W. LYON. *Journal American Medical Association,* April 19, 1919.

There are two systems of designating the four different isohemagglutination groups in use. Few authors refer to the two systems, and the author of the older one is seldom mentioned. The older recognized classification is that of Jansky, according to which the most common group, the one whose serum is most agglutinated, and the cells of which are never agglutinated, is call Group I, while the least common group, the serum of which never agglutinates, while the corpuscles are always agglutinated except by its own serum, is called Group IV. Groups II and III are intermediate in these qualities. The other system is that of Moss, which is just the reverse of that of Jansky. The common or strong group is Group IV and the rare group is Group I. In favor of the Jansky method are its priority and the rational method of numbering the groups according to the frequency of their occurrence. The argument for the Moss classification is its apparently wider adoption.

Painless Incision. A. L. SORESI. *Journal American Medical Association,* May 13, 1919.

Soresi says that incision may be made painless by first dipping the scalpel into pure carbolic acid a few seconds before use. This will be the case even in incising deep tissues. It is the least dangerous method of anesthesia, either local or general. Naturally it is the cheapest method, and in a certain class of cases it promotes the complete cure of the pathologic condition. This statement requires some explanation. On account of the slight cauterization produced, wounds do not close as rapidly as when made with a bare instrument, but this is an advantage in incising tissues the cut edges of which do not need to adhere immediately, as in opening pus-collections or infected tissues, but it should not be used when union by first intention and suture are needed. The scars produced by this method are not ugly; in fact, much less so than those resulting when drainage is required.